ILLAWARRA INTERNATIONAL HEALTH PRECINCT

Illawarra International health precinct
Dedicated to Your Health

WASTE MANAGEMENT
and
RECYCLING

ENVIRONMENTAL AUDIT
and
SUSTAINABILITY PLAN

Illawarra Regional Development Group

Mission Statement

Illawarra International Health Precinct is committed to minimising the impacts of conducting its businesses on the environment. The importance of acting responsibly on matters of waste generation, recycling, environmental impacts, and working towards sustainability is paramount.

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SECTION 1
INTRODUCTION

The Waste Management, Recycling, Environmental and Sustainability Plan describe the adopted procedures and policies for the Illawarra International Health Precinct. It details our objectives and intentions to guarantee continuing improvements in all aspects of:

- Reducing to the extent of eliminating unnecessary waste, including the generation, storage, disposal and handling of all forms of waste.
- Minimising energy consumption.
- Managing water efficiency.
- Complying with all statutory regulations and standards.

1.1 Aims

- Provide a safe and clean work environment.
- Safeguard public health and safety.
- Meet community expectations.
- Reduce the environmental impact of waste generation.
- Decrease energy consumption
- Minimise water usage.
- Encourage recycling
- Reduce costs and volumes without compromising health care, when managing the handling of waste and disposal.

1.2 Objectives

- Undertake, implement and disseminate this Environmental and Sustainability Plan to the workforce.
- Annually review the Environmental and Sustainability Plan.
- Adopt a waste minimization policy, which embodies achievable purchasing guidelines.
- Cultivate concise waste segregation standards and promote workable guidelines for re-usable products.
- Encourage commitment from all employees to actively concern themselves in waste avoidance reuse, reduction and recycling programs.
- Increase awareness to all staff by introducing a continuing waste management education programmes promoting Workplace, Health & Safety issues and waste minimisation principles.

SECTION 2
DEFINITIONS
Hospital waste can be divided into the following categories:

2.1 Chemical Waste
Medical applications generate Chemical waste, they are formed by the use of chemicals in, laboratories, maintenance, domestic services, during sterilization processes and research. It includes cyanide, mercury, formalin, azide, and glutaraldehyde, which are subject to special disposal requirements. Chemical wastes included in the Dangerous Goods Regulations and Poisons and Therapeutic Goods Act are also included in this stream.

2.2 Clinical waste
Clinical waste is waste which has the potential to cause sharps injury, infection or offence. When appropriately packaged and disposed of, there is virtually no public health significance. This clinical waste contains the following:
- Sharps.
- Human tissue (excluding hair, teeth and nails).
- Bulk body fluids and blood.
- Laboratory specimens and cultures.
- Visibly blood stained body fluids.
- Visibly blood stained disposable material and equipment.

2.3 Pharmaceutical Waste
Is made up of pharmaceuticals and or other chemical substances, specified in the Poisons List under the Poisons and Therapeutic Goods Act 1966. Pharmaceutical materials and substances include expired or discarded pharmaceuticals, filters or other materials contaminated by pharmaceutical products.

2.4 Liquid Waste
Liquid wastes are defined in the Waste Regulation. Wastes included are:
- Grease trap waste.
- Used lubricating oil.
- Waste normally discharged to the sewer.

Sharps:
- Anything capable of inflicting a penetrating injury, which may or may not be contaminated with blood and/or body substances.
- Sharps include needles and any other sharp objects or instruments designed to perform penetrating procedures.

Bulk:
- Free flowing liquids normally held within a disposable vessel tubing Incapable of being drained to the sewer in a safe manner.

2.5 Cytotoxic Waste
Cytotoxic waste means material contaminated with residues or preparations containing materials toxic to cells, principally through action on cell reproduction. This includes any residual cytotoxic drug, and any discarded material associated with the preparation or administration of cytotoxic drugs.

2.6 Organic Products
This includes garden waste, wood, food and vegetable scraps and natural fibrous material which are biodegradable.

2.7 Recyclable Products
Items composed of materials or components, capable of being reused and manufactured into varying goods. Most items would be considered to be recyclable if there are procedures available to collect and reprocess them.

2.8 General Waste
Any waste not included above and which is not capable of being composted, recycled, reprocessed or reused. This stream includes disposable nappies, sanitary waste and incontinence pads.

SECTION 3
RESPONSIBILIITES

3.1 Employer's Legal responsibilities

Employers legal responsibilities would include:

- Ensure hospital activities follow environmental standards detailed in the State and Federal legislation.
- Developing and continuing to maintain safe work practices and a safe work Environment.
- Facilitate staff training and education for the safe handling of all categories of waste generated in the hospital.

3.2 Employees Responsibilities

Employee's responsibilities also include:

- Conform with facility safety policies and procedures, utilise facility safe work practices for their own protection and for the protection of staff and the public.
- Actively support facility environmental initiatives.
- Be aware and comply with the requirements for the handling of chemical substances according to Material Safety Data Sheets (MSDS).

3.3 Resource Efficiency Committee

A resource committee will be established to supervise the development and implementation of waste and environmental initiatives within the precinct.

Table 1: ***Terms of Reference***

GOALS AND/OR OBJECTIVES	To identify opportunities to: - Minimise or eliminate waste. - Intensify resource conservation – reducing the use of raw materials and non-renewable resources. - Increase water efficiency management. - Decrease all forms of energy consumption. - Appraise whole of life savings for the purpose of investing in new buildings and plant infrastructure - Monitoring, reporting and reducing emissions of all Pollutants. - Conforming with regulations and standards.
PIER DEVELOPMENT AND OUTCOMES	- Expedite IIHP environmental strategy via prioritising and assigning existing time to environmental projects - To develop, implement, monitor and review a Waste Management Plan throughout the hospital. - Reduce costs through more efficient use of resources and minimised waste. - Integrating environmental strategies with best business Strategies. - Supply Chain Management. - Constantly engage employees in the process. - Systematically addressing environmental compliance. - Guarantee the compliance with all standards and regulations are met. - Adopt procedures and policies to minimise environmental impact.
REPORTING & PROCESS STRUCTURE	Provides consistent feedback to the Executive Management Committee
CHAIR	Environmental Services Coordinator
DEPUTY CHAIR	NUM Endeavour
COMMITTEE MEMBERS	Finance Manager OHS Coordinator Environmental Services Manager Clinical Representative Maintenance Manager Theatre Representative Administration representative The committee may decide to bring in any other member to address specific issues as and when deemed relevant by the Resource Efficiency Committee.
QUORUM	Minimum of 3
SECRETARY	Committee members are to be nominated of on a rotational basis. Minutes of meetings are to be forwarded to the Infection Control Co-Ord at end of each meeting
FREQUENCY OF MEETINGS	Tri-monthly
FORMULATED	April 2009
LAST REVISED	April 2009

3.4 Licensing Requirements

Licensing is no longer a requirement.

3.5 Education and Training

Illawarra International Health Precinct recognizes all of its responsibility that provide appropriate education, training and supervision of its employees maximising their knowledge of hazards they may encounter in the workplace, and communicate the precincts requirements and procedures that will assist them to undertake and perform their duties in a safe manner.

This is achieved by the following:

- Provide regular scheduled induction courses for new employees.
- Facilitate ongoing training for existing employees, at all levels, inclusive of senior management, utilizing varying formats and mediums.
- Carry out publicity campaigns on a regular basis.

Education and training is conveyed to all staff by a range of qualified and pertinent personnel. These Include, but are not limited to:

- Health and Safety Manager.
- Infection Control – internal, and external to the facility personnel.
- Facility clinical educators.
- Relevant Service Providers.

All course attendances held are to be registered on the staff data base.

Below are the topics for the Environmental and Sustainability which are covered in the Safety and Infection Control education sessions and also form part of the infection control booklet:

- Safe work practices.
- Polices and Procedures related to waste.
- Legislation.
- Provision and safe use of PPE.
- Waste stream definitions.
- Infection Control and Hygiene procedures.
- Costs and benefits of waste minimization.
- Reduce/reuse/recycle.
- Spill management.
- First aid / needle stick injury.
- Environmental impacts of waste disposal.
- Manual handling.

Carryout publicity campaigns incorporating the principals of the Environmental and Sustainability Plan through:

- Brochures.
- Posters.
- Newsletters.
- eMail message communication.

SECTION 4
WASTE MINIMISATION

4 (a) Waste Management Strategies

The precinct will adopt an integrated waste management program utilising a waste strategic approach, which is developed to limit the total volume of non-reusable waste going to landfill.
The waste strategic approach is a list of strategies to managing waste, arranged in order of preference:

- Strategies that look at avoiding products becoming waste generally have preference.
- Strategies seeking to find a reuse for waste, which in turn are generally preferred.
- Strategies for disposal, that will be considered as a last resort.

4.1.1 Waste Minimisation and Avoidance:

Minimisation and avoidance initiatives at Illawarra International Health Precinct have been incorporated into the site facilities Environmental and Sustainability Planed Objectives, and its Procurement Policy.

Aiming at making smart decisions at the point of choice of purchase when procuring items ensuring that they have less packaging, also assessing the real 'need' for the product, purchasing products and with packaging that is readily recycled.

Ideas of avoidance initiatives:

Why not try it out-instead of

Rechargeable batteries - Disposable Batteries
Loose Leaf Tea - Tea Bags
Washable Cutlery - Plastic Cutlery
Washable cups - Styrofoam Cups
Washable Tea towels - Paper Towels
Reusable containers with lids - Plastic Wrap

Carefully plan the quantity of pink "Sani Bins" on site. Following start up carry out an audit of the contents, liaise and coordinate with the provider, identify the requirement for sani-bins in patient rooms, in maternity and public toilets and other staff amenity rooms. On review of the quantity of sani bins try to reduce same, and also attempt reducing the frequency of service and emptying of same. This should enable the precinct to reduce its costs considerably. Further audits are to be carried out to ensure these bins are not utilized for other items.

4.1.2 Reuse Strategy

Illawarra International Health Precinct, and its ancillary site facility have adopted a policy that prohibits the re-use of items that are marked 'Single Use Only' *(Please refer to Single Use Policy.*

The volume of waste destined for landfill is best reduced by re-using items.

Re-useable Items generated at the Precinct will be thoroughly cleaned, and then disinfected and or sterilized being made safe to be used again.

Bleaches, steam and low temperature curing environments will be used as the methods of cleaning, disinfecting, sterilising of re-usable items.

4.1.3 Recycling

Re-Cycling of paraphernalia will assist to reduce landfill, also promoting environmental savings as less natural resources and less energy are consumed. The Precinct will have in place the following recycling initiatives:

- Cardboard.
- Toner Cartridges.
- Paper.
- Batteries.
- Glass.
- Plastic bottles.
- Metal.
- Water.

Ongoing initiatives for the coming years are:

- Increased paper recycling.
- Review of general recycling activities with local council.
- Fluorescent tubes.

The Precinct will undertake at regular intervals scheduled recycling audits to define compliance with the siotes recycling program. The results from the audit will be evaluated and further strategies put in place to further improve the outcomes of the Waste and Environmental Program Plan. (Refer: Table 3)

4.1.4 Disposal

Disposal is considered the least desirable outcome when considering waste management. The methods of waste disposal fall into two main categories, namely landfill or incineration.

The Precinct will put in place the following strategies for reducing waste disposal requirements.

- Disposal requirements considered at prior to procurement of product.
- As opposed to a disposal requirement on completion of use, procure products with a recycle availability.
- Introducing additional recycling initiatives including the installation of blue and green recycle bins, to increase the capacity to recycle general paper and improve the use of confidential paper bins.

4.1.5 Recovery

Resource recovery involves a range of systems and technologies to minimise waste that is sent to landfill, retrieve recyclable items from the rubbish, and convert the rubbish into resources such as compost and/or energy.

Resource recovery represents a range of activities characterised by the treatment and recovery of materials and/or energy from waste through thermal, chemical and/or biological means.

An initiative of the precinct will be to investigate the process of turning unused food into composting for it’s gardens and top dressing. The unconsumed food and tailings will be taken off site, processed and then returned to be used as fertiliser.

Table 2: Recycling AUDIT SHEET

PRODUCT	QUANTITY PER YEAR KG	COLLECTION		STORAGE LOCATION	RECYCLER	REMOVAL FREQUENCY	INCOME (WHERE APPLICABLE)
		WHERE	FREQUENCY				
Office Paper							
Magazines & Newsprint							
Packaging & Cardboard							
Telephone Directories							
Toner Cartridges							
Printer Ribbons							
Aluminium							
Glass							
Steel Cans							
Fluorescent Light Tubes							
Cooking Oil and Fats							
Others							

4.2.1 Waste Classifications for Waste Segregation Audit

The following waste classifications are to be used when undertaking a waste segregation audit. ***Note****: This list is not all inclusive. The table acknowledges the existence of disposable items, but does not endorse their use.*

CLINICAL	GENERAL	RECYCLABLE
Bandages and dressings contaminated with blood.	Foods scraps and disposable flood containers.	Glass.
Blood stained gloves.	Gloves (NOT stained with blood).	Paper.
Blood stained disposable surgical hardware.	Disposable food utensils.	Aluminium (cans, foil etc.)
Bulk blood and body fluids (not capable of safe disposal to the sewer).	Personal items.	OET (polyethylene Tetrachloride) Plastic bottles.
Used needles and syringes.	Flowers (if not compostable).	Cardboard.
Used drainage and suction catheters (full/empty).	Plastic bottles (non-recyclable).	Steel cans.
Theatre gowns soiled with blood.	Disused office supplies.	Milk cartons.
Treated pathology waste (used culture plates/tubes etc.).	Un-used medical supplies.	HDPE (High Density Poly-Ethylene) Plastic bottles
Blood stained disposable bed liners.	Bed liners (not visibly blood stained).	Cooking oils and fats.
Blood stained disposable napkins/incontinence pads.	Disposable napkins (NOT visibly blood stained).	Polypropylene bottles
	Oxygen masks and tubing (clean).	X-ray film (not yet carried out).
	Bed pan covers (clean).	Fluorescent light tubes.
	Sterile wraps.	
	Dressing / Treatment trays.	
	Paper tissues and hand towels.	
	Wrappings.	
	Drained IV bags and tubing.	

4.2.2 Energy and Water Audit

By using energy more efficiently we can:

- Conserve resources;
- Save money; and
- Reduce carbon dioxide production hence less environmental impact.

The following will be considered in the audit process by the Resource Efficiency Committee:

- Determine the members of an audit team.
- Select target area –energy, and water.
- Obtain all relevant bills and consumption data and outline scope of audit.
- Locate all meters and record waste statistics to establish audit baseline.
- Evaluate the best ways of presenting data.
- Establish a database of relevant information.
- Create “profile of facility” in terms of use of all resources and associated costs.

Outcomes from the audit will be used to:

1. Determine a baseline from which improvements can be measured

2. Develop a plan of action which will allow The Precinct to improve environmental practice

Example of Simple Plan:

LOCATION	USE	COMMENTS	IDEAS FOR REDUCING WASTE
Office Areas	Lights	Left on during lunch time.	Use 'SAVE IT' stickers; elect a monitoring team.
	Lights	Not needed near windows.	Take some of the tubes out of the lights.
	Video	Left on all day.	Use timers; put a sign on it.
	Heater/Cooler	Room too hot/cold.	Turn thermostat down/up.
	Cooler	Room to hot	Open window to allow cross flow ventilation
	Heater	Heat escapes – gap under door.	Use a 'door snake'.
	Photocopier	'Energy saver' not used.	Put a sign on it.

Future initiatives will be:

- Posters for energy and water conservation.
- Information in the In-Patient Information Booklet.
- Water saving devices on all taps.
- Changes to scrub sink taps to conserve water (in line with Infection Control guidelines).

SECTION 5
WASTE HANDLING, CONTAINMENT and TRANSPORT
The Precinct will have an adequately trained team responsible for the handling and internal transport of waste. Service providers will be responsible for the disposal of clinical and related wastes. All areas have relevant spill management kits and staff will be appropriately trained to manage spill incidences.

5.1 Review (Internal Transport)
The following areas to be assessed regularly:
• Collection process and frequency.
• Handling.
• Placement of mobile garbage bins, bags and containers.
• Location of waste storage area.
• Contractor collection points.

5.2 Waste Handling
a. General and Clinical Waste:
The handling of clinical waste is underpinned by legislative requirements and standard infection control guidelines apply:
• Facility and Organizational Infection Control Policy.
• Management of Sharps Handling and Needle stick Injuries.
• Hand Washing and Hand Care.
The above is audited via the Infection Control Committee with regular education sessions proposed.

Internal and External transport of sharps and clinical waste
All precinct personnel involved in the transporting of general waste, clinical waste and sharps containers are trained in the associated hazards of handling such waste, and facility, and infection control, requirements for transport and storage.

A secure area, compliant with storage requirements for clinical and sharps waste, is maintained at the facility until waste is collected by external contractors accredited to transport and remove this category of waste in accordance with relevant Australian Standards and Clinical Waste Handling Guidelines.

Waste transport certificates are provided, to the facility, by the transport company and archived at the facility for the required document keeping period.

A general waste area's will be located at the facility for the storage of general waste until collected by an external contractor.

The Precinct will utilise the services of the following external service providers for the collection and transport of:
General Waste – Wollongong City Council Council.
Clinical Waste – Sterihealth.
Sharps Waste – Sterihealth.
Cytotoxic Waste – Sterihealth.

b. Manual Handling:
Manual handling of waste containers is expected to be in accordance with all related Manual Handling requirements. Use of mechanical aids will be utilized wherever possible to reduce the risk of sustaining a manual handling injury. Manual Handling compliance related to waste handling will be audited via the OH&S Committee.

5.3 Waste Bags

Colour coded and signed, (where applicable) waste bags are dedicated to specific waste streams. The colours utilized are in accordance with Australian Standards for waste identification.

- Black Waste Bags are used for the removal of general waste.
- Yellow Bags marked with the signage “infectious waste’ are used to secure clinical waste.
- Purple Bags with appropriate signage for cytotoxic waste (very minimal quantities)

5.4 Waste Trolleys & Mobile Garbage Bins (MGBs)

a. Mobile garbage bins (MGB’s):

MGB’s are utilised to increase the storage ability in areas of the facility, and to facilitate (where applicable) the transport of wastes to appropriate storage areas.

MGB’s are colour coded to indicate the waste stream that it is to store, in accordance with relevant Australian Standards for waste identification.

- Black/Green Bins – general waste storage.
- Yellow Bins – clinical waste storage.
- Yellow lockable containers – contaminated secure sharps storage.
- Purple bins and lockable containers – cytotoxic waste and contaminated secure sharps storage.

b. Waste transport trolleys:

Waste transport trolleys are used exclusively for waste transport within the site. They will be cleaned on a Regular basis.

5.6 Holding Areas

Holding areas are compliant with the legislation and regulations for infection control and general waste storage. These areas are set out on the drawings attached.

5.7 Personal Protective Equipment (PPE)

Personal protective equipment is supplied by the facility and includes:

- Eye shields.
- Gloves.
- Gowns.
- Masks.
- Aprons.
- Footwear.

5.8 Spill Management

Within the Infection Control and Environmental Services Manual Spill Management Procedures are well documented. Specific kits, appropriate to the substance, are located at all relevant areas over the site.
Each area which holds a spill kit is responsible for maintaining the kit and ensuring that all staff are educated.

5.8.1 Spill Kits

The following spill kits, and their location have been implemented throughout the Precinct.

SPILL KIT	LOCATION
Blood and Body Fluid Exposure Kit	All Clinical Areas
Cytotic spills	Emergency Department
Formaldehyde Spills	Theatre
Glutaraldehyde Spills	Theatre
Mercury Spills	Matson
Diesel	Generator

Material Safety Data Sheets (MSDS) provide information on the requirements of spill containment, the effects of the chemicals and the appropriate protective equipment. Current (no more than 5 year old) MSDS's, relevant to the chemical and substance, are available in the areas where the substance is stored and used.

5.9 Transport

Transportation and disposal complies with the EPA's Special conditions applicable to the transportation of trade waste being contaminated wastes generated in hospitals, health institutions and medical laboratories.

SECTION 6
WASTE DISPOSAL
Waste disposal categories are identified and an appropriate disposal program implemented.

a. Clinical Wastes
An accredited contractor is engaged to remove and dispose of clinical waste and medical sharps in accordance with the required State, Environment Protection and Commonwealth Regulations.
A certificate recording the volume of waste transported and disposed is provided to the facility by the external contractor.
Sterihealth has been audited by HICMR – Infection Control consultants

b. General Waste
Removed by Wollongong Council or private contractors.

c. Cardboard and Paper Waste
Removed x 2 weekly by Amcor or a suitably qualified company.

d. Out of Date Drugs
Out of date drugs will be destroyed in accordance with O H & S Standards. Narcotics will be destroyed as per NSW Health and Pharmaceutical Branch Guidelines in the presence of a Police Officer or Inspector from the Pharmaceuticals Branch as per the Poisons and Therapeutic Goods Regulation 2008, Part IV, Division 7, Clauses 125-128.

SECTION 7
WORKPLACE HEALTH and SAFETY

The Precinct will have a robust Workplace Safety Management System aimed at reducing workplace injury and illness. Information relevant to Workplace Safety can be obtained from the H&S Coordinator.

Incident Reporting and Recording:

All waste handling incidents and injuries are investigated as they are reported, and corrective actions, where identified, will be initiated as soon as practical. Incident reports are discussed at the facility safety committee meetings.

Training and Education:

All staff who handle waste and recyclable materials:

- Receive training in basic infection control, personal hygiene, safe handling techniques, correct use of Personal Protective Equipment, spill management procedures and the requirements of the Occupational Health and Safety Act.
- Are issued with appropriate Person Protective Equipment and receive education of storage, maintenance and replacement.
- Are issued with a statement of duties and have access to standard operating procedures.
- Have access to equipment and facilities which minimise manual handling and promote personal hygiene.
- Have access to Material Safety Data Sheets (MSDS) for all chemicals used.
- Are made aware of the requirements of the facility Infection Control Policy and procedures.
- Are offered appropriate vaccination.

Staff Immunisation records are kept in the Infection Control Staff Health folder.

SECTION 8
WASTE SOURCES- CONSTRUCTION PHASE

8.1 Excavated Material
The Illawarra International Health Precinct proposal will have large quantities of soil and silt, stone/shale removal due to the excavation for the sub floor car parks. In early stages of the design the estimated excess fill required to be exported was in the order approximately 65,000m3. Following review of the design with the relative consultants the overall level of the proposed excavation was reduced via lifting the building and basement car parks. The reworked estimated excess fill required to be exported is approximately 40,000m3. The excavation Contractor will be responsible for ensuring that the excavated material is disposed of, off site, in orderly manner, at an approved site.

8.2 Vegetation
The site contains no sensitive flora or fauna, therefore no measures need to be addressed.

8.3 Concrete/ Bitumen
Quantities of concrete waste will be generated by the project. Smaller amounts of concrete waste may also occur from surplus concrete pours for the construction of the structure and paths.

The Contractor will maximise the recycling of waste concrete through the implementation of the following procedures:
- Surplus new concrete and concrete washings shall be disposed of in a concrete wash out area on site.
- Waste concrete shall be transported to an appropriate recycling facility.
- Concrete waste that cannot be practically separated from other waste materials will be disposed of in a appropriate licensed landfill facility ensuring separation and recycling can take place.
- In accordance with the Environmental targets as listed in the project ESD report.

8.4 Wood (Construction Material)
Timber and wooden waste materials that may be generated from the Precinct project as a result of:
- The use of wood material in the construction process such as formwork, false-work, hoardings etc.
- The delivery of materials on pallets or otherwise packaged in wooden containers.

All necessary steps will be taken to ensure all timber and wooden materials are reused or recycled, unless it has been treated or 'contaminated' with some other material and is obviously unsuitable for any other purpose. Wood and timber wastes will be managed according to the following procedure:
- Where and when possible, wood used in the construction process shall be reused.
- At all times pallets and other packaging material shall either be returned to the supplier for reuse.
- Timber and wood that is unsuitable for reuse (for example broken falsework) but may be recycled will be separated, segregated and stored on site either in a designated skip bin or stockpile area. This material will be periodically disposed of to an appropriate facility.

8.5 Metals
Waste metal materials may be generated from the precincts works as a result of:
- The use of metal material in the construction process such as reinforcing, roofing and its supporting structure etc.
- The delivery of materials in drums or otherwise packaged with metal.

All metal materials should be reused or recycled and shall be managed in accordance with the following procedures:
- Miscellaneous metal components shall be stored in metal drums for transport and reuse.
- Where possible drums and other packaging materials shall be returned to the supplier for reuse.
- Any metal that is unsuitable for reuse shall be separated, segregated and stored in designated scrap metal bins in areas on site ready for transport to an appropriately licensed metal recycling facility.

8.6 Chemical, Fuel and Lubricant Containers

It is anticipated that there will be little need for chemical, fuel or lubricant containers during the precincts works. It is not anticipated that disposal of any chemical, fuel or lubricant containers will be required as these are generally reused.

If disposal of such containers is required then the site Environmental Manager shall be consulted to ensure that management is in accordance the DECC's "*Environmental Guidelines: Assessment,*

Classification & Management of Liquid and Non-Liquid Wastes". These containers may only be disposed of in an appropriately licensed facility, and depending on the material they were used to store, may or may not be disposed with other metal or plastic containers.

8.8 Plaster Board

To minimise plaster board waste pre-measured and pre-cut sheets / packs will be encouraged to be used where practical, more importantly the construction method minimises the use of plasterboard over concrete. There will still be moderate quantities of plaster board waste generated during the construction of the precinct. All plaster board waste shall be placed in designated bins for disposal at an approved recycling centre and or turned into the gardens and landscaping.

8.7 Plastics and Glass

It is likely that moderate quantities of plastics and glass waste will be generated during the precinct works. All plastics and glass waste shall be placed in designated bins for recycling and collected as required.

8.9 Paper and Cardboard

Small quantities of paper and cardboard waste will be generated during the precinct works with the primary sources being packaging materials and office waste paper. All waste paper and cardboard shall be disposed to designated bins for recycling and collected on a fortnightly basis.

8.10 Hazardous Waste

A contamination investigation report prepared by Martens indicates that there is no hazardous material on the site. Notwithstanding, any hazardous material (if encountered) will be disposed of in a manner to the satisfaction of the EPA.

8.11 Miscellaneous Putrescible, Packaging and Unidentified Waste

Work activities during the precinct works will result in the generation of miscellaneous putrescible and packaging wastes, including food and drink containers, paper, cardboard and plastic packaging, metals and wood. The Contractor will endeavour to recycle as much of these materials as possible. However, where materials are mixed or not easily separated, disposal to landfill will be necessary. Any unidentifiable materials will be classified in accordance with DECC "Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes".
Putrescible and packaging materials shall be managed in accordance with the following procedure:

- All putrescible waste shall be disposed to the appropriate bins on site. Such bins will be provided in site offices and lunch rooms. They should be kept covered at all times. Putrescible waste will not be disposed to any other bins on site which are not covered.
- All packaging materials should be sorted as much as possible and recyclable materials disposed to the specific designated bins for either glass, metal, paper, cardboard or plastic.
- Non-recyclable, mixed, or inseparable materials shall be disposed to the putrescible and nonrecyclable waste *bin.*
- The putrescible and non-recyclable waste bins shall be collected as required for disposal at an appropriately licensed landfill facility.

8.12 Water

The use of water will be required during the Illawarra International Health Precinct works for both construction purposes and for environmental control measures. For example water may be required to:

- Clean vehicles before leaving site.
- Dampen access roads and exposed areas as a dust control measure.
- Wash out concrete trucks.
- Cleaning of external public roads by street-sweepers (using minimal amounts of water). At no time will hoses be used to clean roads.

Where practical the Contractor shall endeavour to minimise the use of water on site. Initiatives to reduce water use may include recycling of wastewater for watering spoil stockpiles and landscaped areas.

Table 3 Future Waste Audit for Data Analysis

WASTE	Daily Volume (kg)	Estimated Annual Volume (kg)	Average Volume/ Bed Day	Average Volume/ Staff	Cost/kg
Clinical					
Sharps					
Recyclable					
General					
Radioactive					
Cytotoxic					
Pharmaceutical					
Pathology					
Grease Trap					
Hazardous Waste					

Table 4: Storage and Disposal of Waste for Register

WASTE TYPE	Disposal Method	Storage
Clinical		
Sharps		
Pathology		
General		
Recyclable		
Cytotoxic		
Radioactive		
Grease Trap		
Hazardous Waste		
Pharmaceutical		

Table 5: Contractors and Transporters Register

WASTE TYPE	Name Contractor/ Transporter	Address	Contact Phone	Trade Waste Licence No.	Destination
Clinical					
Sharps					
Recyclable					
General					
Radioactive					
Cytotoxic					
Pharmaceutical					
Pathology					
Grease Trap					
Hazardous Waste					

Table 6: Proposed Annual Report – Waste Management Report

WASTE	Quantity/annum Litres or kgs	Handling costs, cleaning, replacement etc.	Transport Costs	Disposal Costs	Total Cost
Clinical					
Sharps					
Recyclable					
General					
Radioactive					
Cytotoxic					
Pharmaceutical					
Pathology					
Grease Trap					
Hazardous Waste					

CONCLUSION

The Illawarra International Health Precinct is committed to ensuring that throughout it's conducting of business at Penrose every possible endeavour will be made to reduce the impact on the environment. This will be achieved by:

- Minimising and reducing waste.
- Recycling water and other products, including food waste.
- Ensuring all Personnel are adequately trained and informed with respect to waste management procedures.
- Encouraging and considering new ideas with respect to waste reduction and the associated cost savings.

SECTION 9
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