Health
Western Sydney
Local Health District

Policy

Waste Management

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Contents

Policy Statement

Western Sydney Local Health District (WSLHD) is committed to reducing to the minimum possible level the waste generated in the normal course of pursuing a high standard of health care for our patients. Where waste generation cannot be avoided, methods must be found to handle, store and dispose of it in the least damaging ways available to our environment whilst being mindful of the high financial costs associated with incorrect waste segregation and disposal.

To meet this commitment WSLHD has:

Appointed an Environmental Sustainability Coordinator who is responsible for the development and implementation of WSLHD's Sustainable Waste Management Program. This also includes the identification of cost saving opportunities, initiatives to reduce waste to landfill, ensuring compliance to relevant legislation, identifying and implement waste management best practice and provide staff education.

There is a General Services Manager/ Supervisor at each facility of WSLHD responsible for the day-to-day operations and management of waste activities at the facility. These Managers/ Supervisors oversee compliance with the WSLHD Sustainable Waste Management Policy and program; collection and collate waste stream data for submission and inclusion in the LHD Waste Report; track and monitor waste systems, promote and educate General Service staff in waste minimisation and best practice

Implement a Waste Policy manual that includes but is not limited to:

- Definition of waste streams
- Waste management responsibilities
- Legislative guidelines and obligations
- Waste tracking and monitoring systems
- Correct segregation and disposal procedures
- Educational and promotional programs
- Purchasing Policies which encourage sustainability
- Transporting and storage of waste requirements
- WHS waste related issues

Intended Audience

General Services Mangers will use this as a reference guide. WSLHD workers must follow this policy when discarding waste.

Scope

This Waste Management Policy manual has been based on a wide range of National and State waste guidelines and has incorporated waste legislative requirements. The WSLHD Waste Policy applies to all areas that are governed by WSLHD and requires the cooperation and commitment of all workers.

The WSLHD Waste Policy manual is available on the WSLHD Environmental Sustainability Intranet Site and will be reviewed as required by the WSLHD Environmental Sustainability Coordinator.

Rationale

In general, waste pollutes the environment and is potentially harmful to the health of humans and many other life forms. The minimisation and appropriate management of all types of waste within a health care facility is essential for the benefit of a healthy environment, resource preservation, legal obligations and for realising cost efficiencies.

Expected Outcomes

WSLHD will manage all streams of waste as required by the Environmental Protection Authority (EPA) and environmental legislation.

It is expected that all WSLHD workers commit to the Waste Management Policy Manual. Key Performance Indicators (KPIs) have been established to monitor and evaluate waste performance on a quarterly basis. WSLHD has implemented various waste strategies and systems that aim to meet the expected outcomes below:

- Compliance with legislative and licensing requirements by ensuring that workers of WSLHD are aware of these guidelines and apply these as part of their normal work routine
- Standardisation of Waste Management Programs across WSLHD facilities to ensure best practice systems are in place and that waste is managed in a safe and cost-effective manner
- Improved waste performance through the implementation of ongoing waste minimisation strategies that supports effective recycling programs and promote waste practices cost efficiencies
- Meet waste management requirements as stated in: NSW Health waste policies, Work Health Safety and Injury Management Profile (WHS&IM) and National Standards.
- Compliance with the NSW Health WHS and Injury Management Tool – PD2007_030 *under review as of March 2016*
- All workers are educated on waste management and can demonstrate that knowledge through correct segregation and disposal methods
- An effective promotional program that continually improves waste awareness and enhances worker involvement.

Definitions

See Acronyms

Acronyms

- EPA- Environmental Protection Authority
- OEH- Office of Environment and Heritage
- WHS- Work Health and Safety
- WARR- Waste Avoidance and Recovery Resource Strategy
- GREP- Government Resource Efficiency Policy
- POEO- Protection of the Environment Operations Act
- SDS- Safety Data Sheet
- IIMS- Incident Information Management System
- MoH- Ministry of Health

WSLHD Waste Commitment

WSLHD has a formal, executive endorsed and documented "Waste Commitment" statement aimed at promoting and supporting the Waste Management Program. Waste Policies and Procedures have been developed to demonstrate this commitment so that the workers have a clear understanding of their responsibilities in waste management. The Waste Statement is displayed in the front entrances of WSLHD facilities to ensure that the wider community is aware of WSLHD commitment to waste minimisation.

The statement reads: *Sydney West Area Health Service (WSLHD) workers are committed to a sustainable future by supporting a waste, energy and water management program that is safe, efficient, cost effective and protects the environment*.

The rationale for this commitment is indicated as follows:

Safety- WSLHD is committed to ensuring the health, safety and welfare of all its workers and the health and safety of others in the workplace. This will be achieved by adopting an Occupational Health and Safety Risk Management approach to the management of waste.

Safe work practices/safety rules associated with waste handling, collection and disposal have been integrated into departmental job instructions and training for relevant workers.

Efficiencies- Waste minimisation programs have been implemented within the health care environment for all types of waste streams. These are aimed at reducing waste to a minimum whilst promoting cost efficiencies through reducing, reusing and recycling (refer to Waste Streams & Posters section on the Intranet).

Environment- Waste pollutes the environment and is potentially harmful to the health of humans and many other life forms. As most are aware, waste to landfill contributes to atmospheric pollutants primarily through the production of methane emissions which is the result of waste breaking down in landfill.

Relevant Waste Guidelines

There are a number of legislative requirements and guidelines relating to Waste that must be complied with. The guidelines are similar in content, however, significant guidelines are regularly referred to and monitored throughout WSLHD, these are:

- Environmental Protection Authority (EPA) Protection of the Environment Operations Act (POEO) 1997
- NSW Health: Waste Management Guidelines for HCF, 1998
- Waste Avoidance Resource Recovery Strategy 2014 - 2021
- Office of Environment and Heritage, Government Resource Efficiency Policy
- Work Health and Safety Regulation 2011

Protection of the Environment Operations Act

Whilst holding a licence is no longer a requirement, Health Care Facilities will still continue to be regulated and audited for compliance to the Act by the Office of Environment and Heritage.

NSW Health, Management of Clinical and Related Waste 1998

The Ministry of Health Guidelines apply to all NSW Public Health facilities including community health centres. The guidelines are designed to assist managers and personnel of health facilities to implement standards that comply with the relevant legislations.

Waste Avoidance Resource Recovery Strategy (WARR Strategy)

The NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014–21 is a key component of the Government's vision for the environmental, social and economic future of the state that will be supported financially by the *Waste Less, Recycle More* initiative.

There are 6 Key Result areas:

- Key Result Area 1: Avoid and reduce waste generation
- Key Result Area 2: Increase recycling
- Key Result Area 3: Divert more waste from landfill
- Key Result Area 4: Manage problem wastes better
- Key Result Area 5: Reduce litter
- Key Result Area 6: Reduce illegal dumping.

Government Resource Efficiency Policy (GREP)

The aim of the NSW Government Resource Efficiency Policy is to reduce the NSW Government's operating costs and lead by example in increasing the efficiency of the resources it uses. The policy will help to ensure NSW meets the goals of NSW 2021: A plan to make NSW number one. It aims to drive resource efficiency by NSW Government agencies in three main areas – energy, water and waste – and also reduce harmful air emissions from government operations.

This policy will ensure NSW Government agencies:

- meet the challenge of rising costs for energy, water, clean air and waste management

- use purchasing power to drive down the cost of resource-efficient technologies and services
- show leadership by incorporating resource efficiency in decision-making.

This policy replaces the previous NSW Government Sustainability Policy and streamlines reporting under the
Waste Reduction and Purchasing Policy (WRAPP). It supports goals and targets in NSW 2021 and delivers NSW
Government actions from the:

- NSW Energy Efficiency Action Plan to drive government agencies to undertake energy efficiency projects
- NSW Renewable Energy Action Plan to encourage renewable energy development in NSW and support midscale solar projects
- Draft NSW Waste Avoidance and Resource Recovery Strategy 2013–21 to reduce the generation of waste and make better use of resources
- NSW Auditor-General's report, Building Energy Use in NSW Public Hospitals, which recommends investment in energy efficiency and improved energy benchmarking
- Data Centre Reform Project that will consolidate the NSW Government's data centres into two new highly efficient centres.

Work Health and Safety Act and Regulation 2011

The Waste Management Policy has been developed in accordance with WHS legislative requirements and reflects responsibilities in regards to waste management. Refer to the WHS Unit for all documents related to safety requirements for workers and managers at WSLHD.

Waste Management

Waste Responsibilities

Everyone within WSLHD has a role in Waste Management. Indicated below are specific worker responsibilities:

- *The General Services Business Review Group* in conjunction with the Environmental Sustainability Coordinator oversees the Waste Management Program and monitors waste accidents/incidents and collects statistical data
- *Health Support Services* ensures that purchases made by the organisation comply with the GREP.
- *Each unit/service manager* is responsible for his or her area of work and for ensuring that their workers adhere to all waste management training.
- Each WSLHD facility has a nominated General Services Manager or Supervisor who is responsible for the day-to-day management of waste activities, waste data collation and record keeping.
- All WSLHD workers are responsible for the correct segregation and disposal of waste. Workers are required to carry out their duties in accordance with the documented safe work practices/safety rules and report waste accidents/incidents. Workers are not to remove waste from disposal areas for their own private usage or personal gain. Workers are only to utilise bins provided by the LHD. Bins not provided by the LHD will not be serviced by waste removal staff/ contractors.

Waste Contacts

The facility General Services Manager/ Supervisor should be contacted in the first instance with day-to-day operational issues regarding waste management.

The Environmental Sustainability Coordinator is available to provide advice and assistance with any waste matters as well as conduct in-services at a suitable time.

Table 1: WSLHD Waste Contacts

Facility	Contact Number	Tie Line/Ext*	Position
Auburn	8759 3052	801 3052	General Services Site Manager
Blacktown	9881 8328	48328	General Services Site Manager
Cumberland	9840 3023	43023	General Services Site Manager
Mt. Druitt	9881 1748	41748	General Services Site Supervisor
Westmead	9845 6000	56000	General Services Site Manager
WSLHD	9840 3770	43770	Environmental Sustainability Coordinator

Waste Storage Areas

Waste storage areas must comply with all aspects of the POEO Waste Regulation.

Consideration should be given to the following when designating an area as a waste storage area:

- appropriate ventilation
- adequate fitted locks to secure the area whilst unattended
- rigid impervious flooring for hosing and cleaning purposes
- appropriate drainage
- suitably located to restrict public access
- suitably located to prevent contact with food and clean supplies
- availability of appropriate spill kits and cleaning equipment to clean spillages and appropriate personal protective equipment (PPE)
- hand basin facilities for hygiene purposes

Waste Collection Procedure and Schedule

Trained General Service's workers collect waste. These workers wear appropriate personnel protective equipment (PPE) whilst performing their duties. General Service's workers collect waste from all areas of the hospital on a routine basis determined by the Waste officer at each facility to minimise:

- WHS risks to staff, visitors and patients
- infection and cross contamination
- odours arising from waste disposal
- manual handling risks through overfilling of containers

For local procedures consult with the facility General Services Manager/ Supervisor.

Cleaning of waste equipment

- cleaning of bins should be completed in compliance with local safe work practices and local cleaning policies
- waste trolleys and electric buggies used to transport waste should be cleaned daily
- waste holding areas should be part of the pest control schedule to discourage the harbouring of vermin

Waste Streams Definition

This section gives in-depth information relating to the various waste streams that exists within the facilities and as classified by the Office of Environment and Heritage.

General solid Waste

Any waste, which is inert or solid and is not capable of being composted, recycled, reprocessed or reused in a hospital setting.

Examples of general waste generated in NON clinical areas are:

- plastic products not capable of being recycled (ie, heavily contaminated with food, blood etc)
- disposable items such as foam cups & food containers
- contaminated plastic eating utensils
- confectionery wrappers/chip packets
- cleaning cloths, used mops etc
- uneaten/leftover meals (not applicable to staff cafeterias)
- spent (dead) flowers/plants

Examples of General waste generated in CLINICAL areas include (items must not be heavily soiled with blood or bodily fluids):

any of the above, plus the following -

- nappies and incontinence pads
- clinical gowns (soiled)
- reused Kimguard
- sanitary napkins/tampons
- drained dialysis waste
- non-recyclable packaging
- any other sanitary waste resulting from the control of body fluids
- other wastes as directed by the Area Infection Control team

Monitoring of general waste occurs at the Waste Services Centres to detect the presence of unacceptable components of our general waste, such as inappropriate disposal of Clinical Waste. These waste centres and associated transfer stations are not licensed to receive clinical, Cytotoxic, pharmaceutical, radioactive or sharps waste.

If any clinical or hazardous wastes are disposed of as general waste, the whole load will be segregated and transported to an appropriate licensed treatment facility. Breaches by the customer or transporters will incur substantial fines.

Segregation practices

General waste should be placed in semi-opaque white bags or designated colour coded mobile garbage (wheelie) bins or other non mobile bins that are provided in the work area.

Full waste bags should be transported to the nearest mobile garbage (wheelie) bin. Bags should be transported avoiding any body contact with the bag. Hands should never be placed in waste bags under any circumstances. Mobile garbage (wheelie) bins should be transported one at a time to avoid manual handling injuries. Bins should be transported in a safe manner at all times and should be transported via non-public routes where possible.

Storage and collection

General waste is stored in bins/compacted at the waste holding area. An Area appointed waste contractor collects the bins/compactors on a scheduled basis or as required and transports the contents to a licensed waste transfer station for landfill.

Cost of disposal

The cost of disposing general waste is in accordance with the current contract price and is generally five (5) times lesser than for Clinical waste disposal.

Clinical Waste

Clinical waste is waste that has the potential to cause sharps injury, infection or offence. When segregated and disposed correctly in appropriate solid yellow containers, there is virtually no public health significance.

Types of clinical waste: *(Refer to PD 2005_132)*

- Sharps
- Human tissue *(excluding hair, teeth & nails)*
- Bulk body fluids and blood
- Visibly blood stained body fluids and visibly blood stained disposable material and equipment
- Laboratory specimens and cultures
- Animal tissues, carcasses or other waste arising from laboratory investigation or for medical or veterinary research unless treated by a method approved by the Director General of NSW Health

Segregation practices

Clinical waste should be segregated and disposed of in yellow lockable mobile garbage (wheelie) bins/containers which are appropriately placed in all clinical areas. Immediate segregation and disposal of clinical waste should occur at the point of generation. Clinical waste should be disposed of into the designated yellow plastic bag or bin. Correct identification of clinical waste is essential as it costs five times the amount of general waste to dispose. However, if the waste classification (from a clinical area) is unclear it is advisable for the employee to dispose the waste as clinical waste.

Double handling of waste should be avoided at all times and bins should never be overfilled. Plastic liners placed by the waste contractor should never be adjusted, as these have no significance except for the waste contractor.

Where bags are utilised to contain clinical waste, these must be the approved yellow bags with the appropriate international recognised bio hazard symbol in black, as illustrated in NSW MoH Waste Management Guidelines for Health Care Facilities, August 1998.

Bags should be:

- Securely fitted to receptacles or pedal operated bag holders. These are fitted so that sufficient space is left to tie the bag without compacting or disturbing the contents. Handling of bags whilst transferring to the yellow mobile garbage (wheelie) bin should be done avoiding body contact.
- Drainage bags with tap attachments should be drained of body fluids by emptying in the sluice in the utility rooms *(drainage bags that don't have tap attachment should not be cut into or manipulated but must be emptied full).* Extreme care should be taken when undertaking this procedure and appropriate PPE such as gloves, goggles and aprons must be worn to minimise hazards associated with splashes.

Waste handling and transportation

Mobile garbage (wheelie) bins containing clinical waste must never be overfilled and handled with care due to the infectious nature of the waste. Protective apparel should be worn when transporting these bins.

Mobile garbage (wheelie) bins should be locked and transported one at a time to the holding area. The waste transporters should use non-public routes to transfer the waste and should check for any spillages that may occur.

Clinical waste spill kit

Areas that generate clinical waste must risk assess to determine if department spill kits are required.

Sharps Waste (Clinical)

Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.

Sharps disposal and responsibility

The WHS legislation requires employers and workers to maintain a safe working environment. Accordingly, it is hospital policy that the person who uses any sharp object capable of inflicting a penetrating injury is responsible for its safe disposal.

New legislations require health facilities to accept needles and syringes from the community for disposal (free of charge).

External organisations requesting disposal of large volumes of needles and syringes may be charged and should be informed of the appropriate waste contractor for future collection.

Segregation practices

Sharps should be disposed of in approved yellow sharp container that meets AS/NZS 4261:1994 or AS/NZS 4031:1992 depending on if reusable or disposal system and should only be filled to the marked line. The container should be sealed in accordance with manufacturers guidelines. Full disposable sharp containers are to be sealed and placed in the appropriate designated storage area and transported to a lockable area awaiting collection

Cytotoxic & Related Wastes

Related waste is waste that has the same risks as clinical waste and present health risks to the environment and the wider community. Related waste includes:

- Cytotoxic waste
- Pharmaceutical waste
- Recognisable Body Parts

Cytotoxic waste

Cytotoxic waste means material contaminated with residues or preparations containing materials that is 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.

Cytotoxic Segregation practices

Cytotoxic waste including materials and personal protective equipment should be carefully disposed of in approved purple bags with the waste symbol (denoting a cell in telophase), sealed and taped at the neck of bag. These should be placed in the purple wheelie bin and stored for collection away from public view. General Services staff remove the bin as required.

Sharps (Cytotoxic)

Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and or body substances. These include needles attached to Cytotoxic syringes, scalp vein sets, intrathecal and intra-cavity stylets, Cytotoxic contaminated bottles and ampoules. Other sharp objects or instruments designed to perform penetrating procedures.

Sharps used for Cytotoxic drug administration should be disposed of in the approved “purple sharps container” and should only be filled to the marked line. The container lid should be placed carefully over the opening of the container to seal the contents. Disposable sharp containers should be placed in the purple mobile garbage (wheelie) bin and the reusable sharp containers should be stored in an area away from public view.

Cytotoxic spill kit

Facilities should manage waste spills as they occur. Personnel involved in spill management should be trained in emergency spill procedures and handling requirements. Spill kits and appropriate PPE should be readily available in areas where Cytotoxic substances are used or stored. If a cytotoxic spill kit is used it must be disposed of in a cytotoxic bin.

Pharmaceutical Waste

Consists of pharmaceuticals or other chemical substances specified as regulated goods in the Poisons and Therapeutic Goods Act 1966. This includes any substance that is specified in a Schedule of the Poisons List under that Act, as well as any therapeutic good, which is unscheduled.

Pharmaceutical waste includes:

- Expired and discarded drugs
- Pharmaceutical waste generated in manufacture
- Filters, laminar flow cabinets and packaging contaminated by pharmaceutical products

Segregation practices

Pharmaceutical waste should be placed in the Purple wheelie bin, which is used for Cytotoxic waste. These bins should be kept locked and kept in a secure area whilst awaiting collection by the contractor. The disposal process is by incineration.

Recognisable Body Parts

These are parts of the human body that can still be recognised including products of conception *(excluding teeth, hair and nails).*

Segregation practices

This waste must be disposed of in a Burgundy wheelie bin and transported to a secure waste storage area for collection by the WSLHD contractor.

Storage and transportation

Cytotoxic, pharmaceutical and body parts are stored in the clinical waste storage area. This is kept secure till such time as collection occurs by the WSLHD waste contractor.

Hazardous Waste

Hazardous Chemicals disposal

Examples of hazardous chemicals within health are: formalin, petrol chemicals, cleaning agents, acids etc.

The cost of disposal will be billed to individual departments that have generated the waste. Quotes for disposal are to be organised through the WLSHD Environmental Sustainability Coordinator.

Labelling & Recording

When disposing of hazardous chemicals in a container that is not the original container, the container must be adequately labelled as prescribed in the Code of Practice Managing the risks of Hazardous Chemicals in the workplace .

Liquid Wastes

Liquid Waste is defined as waste material that is determined to contain “free liquids” and separated from the solid portion of waste under ambient temperature and pressure.

Liquid wastes includes grease trap waste, used lubricating oil and waste normally discharged to the sewer.

Grease trap procedures

Grease traps procedures should be in place to ensure grease traps are maintained in accordance with Sydney Water’s standards, these include:

Grease traps should be adequate for the collection of all grease wastes, and are operating and maintained at maximum efficiency to reduce vermin infestation;

Vegetable cut-offs, scraps and/or similar waste should be prevented from entering the waste water stream by installing fine screens to sumps, plus other work practices.

Grease trap disposal and recording procedures

- All facilities in WSLHD are to use the services of an area appointed general waste contractor for the disposal of liquid waste
- All facilities are to ensure that their grease traps are adequate for the collection of all grease wastes, operating, maintained at maximum efficiency and prevents the harbourage for vermin
- Facilities are to retain all relevant dockets and records concerning collection services from the appointed waste contractor
- Facilities are to provide appropriate supervision of the contractor to ensure correct procedures for the removal of grease trap waste are complied with
- The process of "de-watering" is not permitted and facilities requiring guidance should consult with the Sydney Water’s, Trade Waste Section.

Batteries

Discharged batteries that contain elements of acids, cadmium and ni-cad are toxic and should not be disposed of in the normal general waste stream.

Large discharged batteries should be disposed of through an external contractor. This can be organised through the facility BioMedical Unit. Please refer to this link for more details.

Alkaline batteries (AA, AAA, D, C etc) – currently there is no provision for the separate capture of these batteries for recycling purposes. Until such time as an alternative service is available, it is safe to dispose of these in the General Waste Stream.

Tender specifications for the purchase of batteries should include suppliers/manufacturers return policies, so that the supplier/manufacturer can collect discharged batteries. This will reduce the high costs associated with waste-to-landfill disposal.

Radioactive Waste

Radioactive waste is material contaminated with radioactive substances which arises from medical or research use of radionuclides. It is produced for example, during nuclear

medicine, radio immunoassay and bacteriological procedures and may be in a solid, liquid or gaseous form and be included in the body waste of patients under treatment. At WSLHD, radioactive waste is only generated at Westmead.

Segregation practices

Material is handled after consultation with the hospital's Radiation Safety Officer. Scintillation waste is removed as hazardous waste after transfer to radioactive waste store. Transfer arrangements should be made through the hospital's Radiation Safety Officer (contact Med Physics on your campus). Under the NSW POEO Act, solid radioactive waste may not be sent to landfill and has to be stored in-house until no longer legally radioactive. Radioactive waste found in treated patients body waste should be disposed following local departmental procedures.

Radioactive Spill procedure

1. Evacuate all personnel from the immediate area
2. Contact the Radiation Safety Officer in Medical Physics
3. Restrict access to the area, if possible contain the spill
4. Await instructions from Radiation Safety Officer -in-charge
5. Record incident on the Radiation Safety Form and an IIMS Staff, Visitor, Contractor form.

Additional information regarding Radiation waste can be found on the WHS Unit Intranet site.

Bio Hazard / Genetically Modified Waste

This waste is genetically manipulated biological material, includes any material used in the construction and or propagation of Genetically Modified Organisms (GMOs). GMOs can be viroids, viruses, plasmids, cells and other organisms (including animals). GM material may be solid or liquid and may derive from clinical or research applications.

Segregation & transport practices

Guidelines for handling GMOs are developed by the Office of the Gene Technology Regulator (OGTR: www.ogtr.gov.au) in accordance with the Gene Technology Act 2000. All uses of GMOs must be assessed and approved by the local responsible Institutional Bio-Safety Committee (IBC) prior to any work being carried out. Depending on their level of hazard, GMOs are dealt with in facilities of varying physical containment (PC level).

GMO waste from PC2 facilities should be segregated into bins suitable for autoclaving, lined with autoclave bags. These bins must be supplied with tight fitting or lockable lids for transport. Transport of waste to the site of autoclaving must be in accordance with the Guidelines for Transport of GMOs published by the OGTR.

Should a spill of GMO waste occurs in transit to the site of autoclaving the spill must be chemically disinfected and cleaned up immediately. This disinfection and clean up must only be performed by an appropriately trained person (PC2 trained), and not by staff from General Services. A written report of the incident must be lodged with the IBC.

Disposal methods

Preferably, GMO waste from PC2 facilities should be sterilised on site by steam autoclaved and temperatures must reach 121°c for 20 minutes. Once autoclaved the waste should be disposed of as clinical waste. Where no autoclave facilities exist, GMO waste can be disposed of in a Cytotoxic (purple) waste bin to ensure high-temperature incinerated. However, this waste must be stored in a secure facility in a locked waste bin prior to incineration. Waste from a PC3 facility must be autoclaved within the facility and then be disposed of as clinical waste.

Microbiological Waste

Microbiological waste is created by microbial or tissue cultures and may be autoclaved by the user depending on the type of hazard before disposal into the contaminated waste stream. GMO microbiological waste must be treated a biohazard waste.

Trade Waste

Trade Waste is a type of inert waste which consists of virgin excavated natural materials such as clay, gravel, sand, soil and rock that are not mixed with any type of waste. Building and demolition wastes such as bricks, concrete, metal, timber are also included in this stream. These wastes must be free from asbestos or any form of contamination.

At writing, mattresses are to be discarded in trade waste bins. The LHD is charged per unit for removal of mattresses and is currently exploring options in recycling.

Broken glass

Uncontaminated broken glass or small items (e.g. < 500-ml beaker) should be placed in an AS/NZS 4031:1992 approved sharps containers. Large amounts of glass should be carefully wrapped, labelled and stored appropriately in designated waste holding areas and disposed of as trade waste or general waste if more convenient.

Contaminated glass

Contaminated broken glass should be safely placed in an AS4031-1992.approved sharp containers

Fluorescent tubes

Fluorescent tubes should be safely disposed of. Please contact your facility's Maintenance Department for correct disposal bin.

Asbestos

Asbestos disposal is not covered under this policy. Refer to the WSLHD WHS Unit or facility Maintenance Department for assistance.

Recyclable Products

Recyclable Waste is items that have the capability to be reused or reprocessed for reproduction.

Segregation and disposal

Recyclable waste should be segregated and disposed of in appropriate coloured wheelie bins (see below). These are collected and stored in the waste area until collection by the waste contractor. Recyclable waste is transported to recycling plants (materials recovery facilities):

Packaging and Paper – all types of coloured or non-coloured paper, index cards, magazines, newspaper, manila folders and hardbound manuals, stapled documents are acceptable. These items should be disposed of in orange-lidded green wheelie bins

Cardboard – all types of non-waxed cartons/cardboard, e.g. egg containers, cereal packaging, stationery boxes, photocopy paper boxes, medical provision boxes etc. All cardboard boxes should be flattened and neatly stacked, then placed beside the orange-lidded mobile garbage (wheelie) bin *(not to be placed directly in mobile wheelie bin)*. Smaller packaging may be flattened and placed directly in the in orange-lidded green wheelie bins. All cardboard boxes to be stored in designated collection points within the work area. The General Services Staff collect and transfers these to the waste area. The cardboard is then compacted or dissembled by the hospital staff ready for collection by the waste contractor

Mixed (Commingled) recycling products:

Plastic Products - plastic products that have a recyclable symbol is a recyclable product. These including PET, HDPE, LDPE bottles, milk containers, etc. Acceptable clean recyclable products should be placed in the yellow-lidded green wheelie bins (commingled bin). The General Services Staff collect and transfers these bins to the waste area where they are stored for collection by the waste contractor (do not place paper/cardboard in this bin). Some sites may have bins with a blue lid or other colour, check with your local General Services Department for the correct bin. If your department does not have a commingled recycling bin, then please ask your General Services Department to order one for you.

Glass Waste - all types of unbroken cleaned glass/bottles are recyclable and should be placed in the yellow-lidded green wheelie bins (commingled bin). Acceptable clean recyclable products should be placed in the yellow-lidded green wheelie bins (commingled bin). If possible, any labelling should be dislodged and disposed of into general waste. Broken glass should be wrapped and marked as such and left in the dirty utility room to be disposed of as trade waste

Aluminium - aluminium cans are placed in the yellow-lidded green wheelie bins (commingled bin) for collection

Phones - out dated or broken mobile phones and communication equipment can be recycled. Take phones to designated E-Waste collection points.

Toner Cartridges - toner printer cartridges are recyclable and should be placed in a cardboard box marked as such. These can be returned to the nominated officer designated within your facility.

Furniture- furniture may be recycled within the LHD by alerting the Environmental Sustainability Coordinator. Furniture that meets WHS standards will be advertised on the

Environmental Sustainability intranet site. Furniture that may not be suitable for continued use in Health may be recycled through means such as auctions or donations. Contact the Environmental Sustainability Coordinator for assistance.

Confidential Waste

Under the NSW Privacy Laws, an organisation must take reasonable steps to protect the personal information it holds from misuse and loss and must take reasonable steps to destroy or permanently de-identify personal information if it no longer needed (refer NSW Privacy Acts).

Waste is classified as “confidential“ if the contents of the material or document contain sensitive information that may breach confidentiality, cause undue stress to an individual or embarrassment to the organisation. These documents should be disposed of as “confidential waste”. However, documents/records cannot be disposed of without appropriate authorisation (refer to WSLHD Policy on Corporate Records Management)

Confidential material/data should be disposed of in a locked bin/ container or shredded only in accordance with the WSLHD Policy on Corporate Records Management and associated Procedure for Management of Administrative Records and Procedure for Management of Health Care Records.

Shredding is not cost effective if more than 10 x A4 pages need shredding per day.

Confidential DVDs and CDs must be also disposed following NSW Privacy Laws. This can be arranged by contacting the WSLHD Environmental Sustainability Coordinator.

Collection and Disposal

Confidential documents are shredded under secure measures and the shredded material is sent for recycling. The waste contractor must provide a destruction certificate to the facility as proof of destruction. These certificates are held in the General Services Department of each facility for safekeeping and may be accessed if required.

Health facilities requesting the destruction of large volumes of archived documents, electronic/magnetic media items, optical media items, hard drives, non-electronic and non-paper media item (such as videos, x-rays, microfiche, etc.) should make arrangements through the General Services Department at the relevant site (refer Section 8.2 Waste Contacts) once appropriate authorisation for destruction is received (refer to Policy on Corporate Records Management).

Cost of Disposal

As per contract price, currently charged by number of bins (not its content). For DVDs and CDs a quote will be obtained and is to be paid for by the cost code requiring the disposal.

Organic Products

This includes wood, garden, food, vegetable and natural fibrous material waste and bio-solids, which are capable of composting or could be used to enhance lawns /gardens.

Segregation practices

Some facilities may utilise pulping equipment for their food waste. The food waste should be segregated and disposed of in the solid BLUE wheelie bin. Food waste from patient trays contains a small amount of paper, which is acceptable for recycling.

Food waste that is not pulped and is biodegradable is also placed in the blue mobile garbage (wheelie) bin or where available compost bins should be used.

Kitchen waste that is not suitable for pulping, non-biodegradable and is not recyclable should be disposed of in the general waste stream. Shrubs should be shredded and utilised for compost where possible.

Handling and Disposal

Each unit should have procedures in place that aim to minimise waste handling. Handling and disposal of recyclable vegetable waste should be as efficient as possible and disposed of in mobile garbage (wheelie) bins. The bins should only be half filled and be removed from the area as required to avoid odours.

Wheelie bins must be cleaned with neutral detergent after collection before reuse in the kitchen area.

Recycling Disposal Costs

All recyclable waste is disposed of without charge, however, when recycling is contaminated, fines to the LHD can apply.

E-Waste

E-Waste includes end-of-life electronic equipment, such as televisions, computers, mobile phones, stereos and small electrical appliances (but not whitegoods). Managers of departments are expected to co-ordinate movement of any E-Waste to the collection points.

Table 2: WSLHD E-Waste Collection Points

Auburn Hospital	General Services Waste Holding Room
Blacktown Hospital	Near the back of Maintenance
Cumberland Hospital	Collection point at Information Technology Services
Mount Druitt Hospital	Compactor area
Westmead Hospital	Collection point at Westmead Bio Medical opposite Dock 6
Community Health	Facility disposal rooms

Demolition and Construction Materials

Any demolition or construction works at WLSHD must consider if it is possible to re-use building material for the proposed construction.

Managers of demolition or construction projects must demonstrate project management which seeks to:

- re-use of excavated material on-site and disposal of any excess to an approved site;
- green waste is mulched and re-used in landscaping either on-site or off-site;
- bricks, tiles and concrete re-used on-site as appropriate, or recycled off-site;
- plasterboard re-used in landscaping on-site, or returned to supplier for recycling;
- framing timber re-used on-site or recycled elsewhere;
- windows, doors and joinery recycled off-site;
- plumbing, fittings and metal elements recycled off-site;
- all asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with Safe Work NSW and EPA requirements;
- locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and
- destination and transportation routes of all materials to be either recycled or disposed of off-site.

Pharmaceutical Waste

Pharmaceutical waste awaiting disposal should be stored in the same manner as pharmaceuticals in use. Pharmaceutical waste should be placed in non-reactive containers and should not be discharged to the sewer or any process where they may find their way into the environment.

Pharmaceutical cytotoxic waste should only be disposed of in purple cytotoxic bins.

120 L/ 64 L RED bins should be used for collection of partially empty glass vials, hard capsule or tablet medication, broken ampules or drawing up needles.

Waste Tracking and Monitoring Systems

Key Performance Indicators

Key Performance Indicators (KPI's) have been developed and benchmarks have been established to measure waste performance, these tools include:

- recycling percentages to monitor performance
- occupied bed days "OBD" to measure (kg and cost per patient)
- The data is monitored and analysed by the Environmental Services Business Review Group to ensure that continuous improvement is made in waste management.

Segregation Audits

Waste audits are conducted to monitor waste performance and compliance to legislative requirements. These may be completed by General Services Managers, the Environmental Sustainability Coordinator or contracted persons from various waste companies.

Random segregation audits are performed by cutting open waste bags and checking the contents for correct segregation.

Segregation audits determine the accuracy of waste segregation at the department level and provides feedback to General Services management and departments on performance.

Audits should be conducted by observing the following:

- well-ventilated area
- trained personnel to perform the audit
- appropriate equipment to handle waste
- appropriate PPE (Personal Protective Equipment)
- disposal sheeting to separate waste streams
- reporting document
- Following completion of audit, waste must be safely disposed of in correct bins.

Waste Education Sessions and Promotional Activities

WSLHD workers are provided with ongoing training and education in Waste Management principles to ensure that correct segregation practices and correct disposal methods are known and adhered to.

New Workers

New WSLHD workers are required to complete the HETI Online course: Waste Management as part of their orientation.

Existing Workers

Existing workers are kept informed and are provided with waste updates through the Environmental Sustainability Intranet website, broadcasts messages and through specially designed in-services in their respective work areas. Waste promotional programs are conducted from time to time across WSLHD and workers are encouraged to participate.

General Services Staff

Workers who regularly perform duties involving the collection, handling and transporting of waste are provided with a competency based training program to ensure that waste is handled in a competent and safe manner.

The waste handlers training program is designed to educate workers to carry out their duties in a safe manner.

The training module includes:

- Safe handling and transportation of waste
- Correct lifting and manual handling techniques
- Immunisation and vaccination programs
- Use of protective equipment
- Safe work practices
- Correct hygiene procedures
- Reporting requirements associated with waste incidents
- Safe operation of waste equipment and transport vehicles
- Waste segregation and tracking systems
- Spillage procedures
- Spill kits and cleaning equipment

Waste Contracts and Tenders

The Clinical & General Waste contracts are awarded on a 3-year contract with a 2-year option. Specifications are reviewed prior to the expiration date of the waste contracts. These are updated to ensure that WSLHD requirements are met. Annual evaluations are conducted with the waste contractors to ensure that their services are carried out in accordance with the specifications specified in the tender. Officers of WSLHD are nominated as members of the tender committee and approve tenders. The Contractors must provide on- going reports to meet the GREP (Government Resource Efficiency Policy) reporting requirements.

For the list of current WSLHD waste contractors visit the Environmental Sustainability Intranet site.

Clinical Waste Contract

NSW Health Support Services coordinates the tender process for the disposal of Clinical and related wastes contract. The clinical waste disposal contract includes the follow waste:

- Clinical and Related Wastes
- Cytotoxic
- Body parts

Sharps are a separate contract controlled by DSTA.

General Waste Contract

Health Share coordinates the Integrated Waste Contract (9698). The Integrated Waste Contract includes the following waste for disposal and reproduction:

- General Waste
- Recyclable waste
- Clinical Waste
- Security document destruction

Local Service Agreements need to be negotiated in order for the following waste streams to be provided, preferable as part of the above contract, if not, a separate contract is needed:

- Grease Trap Waste
- Food Waste
- Trade Waste
- Hazardous waste
- Scrap Metal

For all current waste service providers, please refer to the Environmental Sustainability Intranet site.

Home Health Care Waste – Clinical

This section applies to those who provide home healthcare on a professional basis. While the patient is under the care of a professional health care provider and clinical/related wastes is generated, then waste should be managed in accordance with the Industry Code of Practice for the Management of Clinical and Related Wastes *(5th edition 2007)*.

Clinical Wastes

Clinical waste is defined as having the potential to cause injury, infection or offence. Clinical waste includes dressings and disposable linen, which is heavily soiled with blood and body fluids. If a small amount of clinical waste is generated (e.g. dressings) in the home environment, this should be wrapped or secured and mixed with other waste and disposed of through the normal household waste stream. If there is a considerable amount of clinical waste, this should be placed in the approved yellow clinical waste bag, secured and transported to the nearest hospital site by the health provider. This is then disposed of as clinical waste.

Segregation practices

Sharps should be deposited into containers that comply with the relevant Australian Standard. (AS/NZ4031) - Yellow rigid containers with the biohazard symbol for disposable sharp containers and, (AS/NZ 4261) for reusable sharps containers.

Health carers have a duty of care to advise clients of safe disposal of sharps/ needles that are used within the home. Clients should be encouraged to dispose their sharps through local council exchange programs or at the nearest hospital facility. This will eliminate the safety risks associated with disposal of needles in the normal household waste.

Waste handling and transport

Vehicles transporting sharps containers should be fitted with a bracket or velcro strapping to secure contents to avoid movement and leakage whilst in transit.

Waste collected by the health provider must be transferred to the nearest health facility.

Clinical waste spillages- clean up bulk of spillage using appropriate PPE with disposable cloth/paper towel and dispose in yellow bag. Wash area with neutral detergent and shampoo carpeted area (spill kit should be kept in vehicle).

Other Health Service provision

Dental Clinics

Managers of Dental Clinics should be aware of the definition of Clinical Waste as contained in this manual in accordance with the Department of Health guidelines *(refer 9.2)*. Managers are responsible for the correct segregation of waste in their respective units and making staff aware of these.

Each dental clinic shall ensure that:

- General, clinical, confidential document destruction and recycling receptacles are provided in all areas of work
- Rigid sharp containers are provided for the containment of sharps
- Waste Storage areas are weatherproof and lockable whilst awaiting collection awaiting collection

Amalgam/Mercury

Mixing silver tin powder with liquid mercury makes dental amalgam. Amalgam is a repairing material used for tooth fissures and is formed in Dental Clinics by the use of single use alloy/mercury capsules. A small amount of amalgam waste is usually formed when a single use capsule is mixed.

The National Health and Medical Research Council recommends storing amalgam waste by immersing in used photographic fixer solution in an unbreakable screw top container and stored in a lockable cupboard in the Dental Clinic. A commercial metal recycling contractor collects these.

Amalgam restoration in extracted teeth should be recycled and therefore should not be disposed of as clinical or general waste. Amalgam restoration should be collected in a separate marked container prior to collection by an external contractor.

For further reference regarding Amalgam/ Mercury review GL2011_002 Dental Amalgam- Its Clinical Use and Disposal.

Mobile School of Dental Screening Services

It is required that personnel attending dental screenings should be provided with disposable gloves and paper towels and a waste bag to contain the waste. These bags should be transported to the dental clinic for disposal in the general waste stream.

HIV and Hepatitis C Prevention Service

Large community sharp disposal bins are located at Blacktown, Mt Druitt, and Westmead Hospitals as well as Doonside, Parramatta, Merrylands and Auburn Community Health Centres. These are available for use to all those community members who are injecting drugs for any reason.

The Sharps/Clinical waste contractor empties these bins on a contractual basis.

The HIV and Hepatitis C Prevention Service operates a “clean up” service, whereby known “hot spots” in the community are regularly patrolled and any sharps found are collected using an “easy reach” tool, and disposed of into a yellow sharps container. This sharps container is then deposited into the large yellow sharps bin at the appropriate Community Health Centre.

The HIV and Hepatitis C Prevention Service also respond to Needle Hotline (1800 needle) calls made by community members. When a community member calls the Needle Hotline to report discarded sharps, Hotline staff contact the closest HIV and Hepatitis C Prevention Service and staff will go to the site to collect the sharps, which are then disposed of in the same manner.

A Safe Work Practice/Safety Rules for Safe Sharps Retrieval has been developed and must be followed by all staff whenever undertaking sharps retrieval.

FOR ALL OTHER WASTE STREAMS AND RECOVERY INITIATIVES, PLEASE REFER TO THE WSLHD INTRANET SITE AT THIS LINK:

http://wslhdintranet.wsahs.nsw.gov.au/Environmental-Sustainability/Environmental-Sustainability

Policy Requirements

All aspects of waste management as outlined in this policy must be followed.

Risk category: *Facilities & Assets Management*

Risk rating: *Low - Review in 5 Years*
(NSW Ministry of Health Risk Matrix is to be used to determine the appropriate risk rating)

Implementation Plan

National Standard:

Essentials of Care Domain *(clinical only)*:

Implementation Timeframe	*By 2017*
Author	*Mitchell Clancy*
Department Manager	*n/a*
Position Responsible	*n/a*
Brief description of the implementation strategy *(link to all resources available or developed)*:	
Process for monitoring and review of the implementation process:	

Education Notes

n/a

References

Waste References

- Waste Management Guidelines for Health Care Facilities, 1998 *(under review as of March 2016)*
- Infection Control Guidelines for Oral Healthcare Settings, GL2005_037*(NSW Health)*
- Radiation Safety Guidelines, 2005 *(NSW Health)*
- Cytotoxic Drugs & Related Waste - Safe Handling in the NSW Public Health System, 2008 *(NSW Health)*
- Glutaraldehyde in NSW Public Health Care Facilities, Policy & Guidelines for the Safe Use, 2005 *(NSW Health)*
- Protection of the Environment Operations Act, 1997
- Waste Avoidance and Resource Recovery Act, 2001
- Protection of the Environment Operations (Waste) Regulation, 2005
- Cytotoxic Drugs & Related Waste – Risk Management, 2008 *(NSW WorkCover)*
- Work Health and Safety Act 2011, Safe Work Australia

Waste Web-sites for further reference

- WSLHD Environmental Sustainability Website
- NSW Health -Waste Management Guidelines in Health Care Facilities
- Office of Environment and Heritage
- Safe Work NSW

Version History

Date	Version	Change details	Author
30.11.2016	1.0		
10.6.2010	2.0		Rita Granada
15.4.2016	3.0	Terminology changes, changes of relevant government body names, changes in legislation	Mitchell Clancy

Health
Western Sydney
Local Health District

Authorisation Sheet

Document Title: WSLHD Waste Management Policy			
Team Leader (TL) Name	Mitchell Clancy	Names of Team Members	Bruce Hampton
			Young-Hee Rieymer
			Raynelle Howat
			Arnel Krishna
			Debbie Ryan
Team Leader's Signature:			

Evidence of Consultation
All documents are required to identify anyone consulted during the process this must be clearly documented below.

Name	Position/Department/Facility
Mitchell Clancy	Environmental Sustainability/ Asset Systems & Sustainability
Bruce Hampton	General Services Manager/ General Services, Auburn
Young-Hee Rieymer	General Services Manager/ General Services, Cumberland
Raynelle Howat	General Services Manager/ General Services, Westmead
Arnel Krishna	General Services Manager/ General Services, Blacktown
Debbie Ryan	General Services Manager/ General Services, Mt. Druitt
Grace Abdini	Senior Clinical Pharmacist/ Mount Druitt Hospital

Name of Manager/Head of Department: KIM PAUL

Signature: _____ Date: 28/7/16

P&P Committee (Chairperson) Date: __/__/____

Name: _____ Signature: _____

General Manager / Director of Operations

Name: _____ Position: _____

Signature: _____ Date: __/__/____

Tier 2 Executive Director (if applicable)

Name: B MANGAN Position: _____

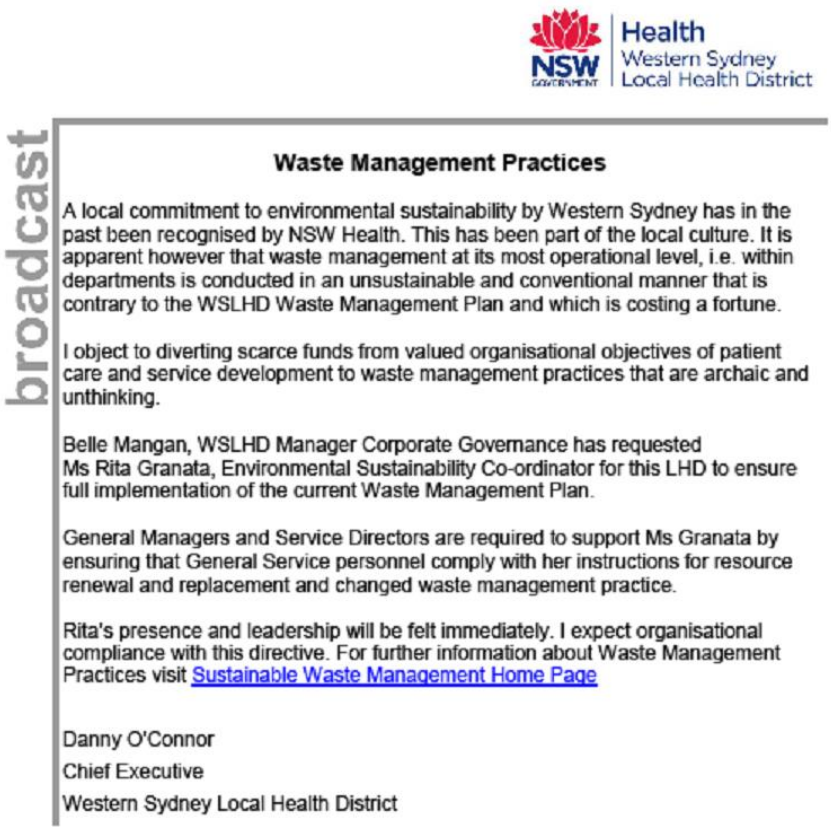
Signature: _____ Date: 9/8/16

WSLHD Chief Executive (LHD Policy)

Name: Danny O'Connor

Signature: _____ Date: 9 / 8 / 2016

Appendix I



Health
Western Sydney
Local Health District

broadcast

Waste Management Practices

A local commitment to environmental sustainability by Western Sydney has in the past been recognised by NSW Health. This has been part of the local culture. It is apparent however that waste management at its most operational level, i.e. within departments is conducted in an unsustainable and conventional manner that is contrary to the WSLHD Waste Management Plan and which is costing a fortune.

I object to diverting scarce funds from valued organisational objectives of patient care and service development to waste management practices that are archaic and unthinking.

Belle Mangan, WSLHD Manager Corporate Governance has requested Ms Rita Granata, Environmental Sustainability Co-ordinator for this LHD to ensure full implementation of the current Waste Management Plan.

General Managers and Service Directors are required to support Ms Granata by ensuring that General Service personnel comply with her instructions for resource renewal and replacement and changed waste management practice.

Rita's presence and leadership will be felt immediately. I expect organisational compliance with this directive. For further information about Waste Management Practices visit Sustainable Waste Management Home Page

Danny O'Connor
Chief Executive
Western Sydney Local Health District

Appendix II Facility Waste Report Template

WSLHD - FACILITY WASTE DATA TEMPLATE

Dept & Facility:	Auburn Hospital, General Services									Click in cell then on drop down arrow to choose facility				
Quarter Ending:	(Month)	2013		Click in cell then on drop down arrow to choose quarter and year										
Type of Waste	Volume (kgs)	Cost ($)	Occupied Bed Days	Volume (kgs)	Cost ($)	Occupied Bed Days	Volume (kgs)	Cost ($)	Occupied Bed Days	Total Waste Volume (kgs)	Total Waste Cost ($)	Total Occupied Bed Days	Kg/pt	$/pt
Clinical Waste	0.00	$0.00	0	0.00	$0.00	0	0.00	$0.00	0	0.00	$0.00	0	#DIV/0!	#DIV/0!
General Waste 1 cubic metre = 98.5kg	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Trade Waste 1 cubic metre = 98.5kg	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Food Waste 240 ltr. = 25 kgs half full bin	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Commingled 240 ltr = 28 kg per bin (full) 120 ltr = 14 kg per bin (full)	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Cardboard 85kg or 65kg per bale depending on size of compactor	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Paper Waste 240l = 25kgs per bin (full) 120l = 12.5kgs per bin full	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Security Waste 240 ltr bin = 55 kgs 120 ltr full bin = 27.5 kgs	0.00	$0.00		0.00	$0.00		0.00	$0.00		0.00	$0.00	0	#DIV/0!	#DIV/0!
Total Volume & Cost										0.00	$0.00	0	#DIV/0!	#DIV/0!

NB: Entries must be in kilograms IN DIGITS ONLY, using specified average weight when no weight given on invoice from supplier.
PLEASE FILL IN ALL YELLOW SHADED AREAS - DO NOT LEAVE A CELL BLANK USE THE DIGIT '0' TO INDICATE NIL.

Reports are due on the 20th of EVERY MONTH and are to be forwarded VIA EMAIL to Rita Granata - Thank you.

Figures for OBD can be found on Intranet link below - Choose Last 13 months in the left hand column & then click on your facility.

http://dashboard/dashboard/production/sap/webpages/sapframeset.htm

ALL COSTS ARE TO BE EX GST