



Operational & Construction Waste Management Plan

Bourke Integrated Primary Healthcare Centre

October 2024

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1. Introduction

This Operational and Construction Waste Management Plan (WMP) has been prepared on behalf of Acorn Project Advisory to accompany a Development Application for the Bourke Integrated Primary Healthcare Centre (88-96 Mitchel Street, Bourke) development.

This Plan details the management of waste generated during the operational phases of the Bourke Integrated Primary Healthcare Centre (BIPHCC).

Services to be provided include: General Practitioner, Nursing Services, Aboriginal Health Worker Services and a range of Program Services. There will also be Visiting Specialist Services, such as Cardiology, Endocrinology, ENT, Audiology, Dietetics, Dental and Podiatry.

This Plan has been developed with consideration of the Bourke Shire Council's *Development Control Plan 2012*.

In addition, the following publications have been consulted for guidance as to waste management for this type of development:

The following publications have also been referred to in the development of this Waste Strategy:

- NSW Health Policy Directive (Clinical and Related Waste Management for Health Services), 14th December 2020
- Waste Management Association of Australia, Biohazardous Waste Industry Group, Manual for the Management of Biohazardous Waste, 8th edition, 2020
- Australian Standard AS3816:2018 Management of clinical and related wastes
- Australian Standard AS23907:2023 Sharps injury protection — Requirements and test methods — Sharps containers
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (Waste) Regulation 2014
- Waste Avoidance and Resource Recovery Act 2001
- NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027
- NSW Environment Protection Authority *Waste Classification Guidelines, Part 1: Classifying Waste*

These requirements are utilised to inform the design of the waste services by identifying the estimated waste profile for the development and providing the total area required by the recommended equipment/systems.

Waste audit and management strategies are recommended for the operation of new development and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements.

The Operational Waste Management Plan address the appropriate segregation, containment and disposal of waste required with waste avoidance being the primary focus. To assist Bourke Aboriginal Corporation Health Service (BACHS) in achieving effective waste and recycling management, this waste management plan has three key objectives:

- i. **to minimise the environmental impacts of the operations of the development on the environment** – this will be achieved by ensuring maximum diversion of waste from landfill; correct containerisation and transport of materials; correct segregation of materials into appropriate management streams; awareness among staff of waste avoidance practices.
- ii. **to minimise the impact of the management of waste within the development on local residents** – this will be achieved by ensuring waste is managed so as to avoid odour and litter and collected during suitable times.
- iii. **to ensure waste is managed so as to reduce the amount landfilled and minimise the overall quantity generated** – this will be achieved by implementing systems that assist staff to segregate appropriate materials that can be recycled; displaying signage in all areas to remind and encourage avoidance and recycling to staff.

2. Operational Waste Management Plan

2.1 Waste Streams

Based on the development profile (ie., medical/nursing services and administrative functions), the following are the main waste streams that would be expected:

- General waste;
- Clinical waste;
- Paper and cardboard; and
- Comingled recycling.

Other wastes may be generated, but these would be in small volumes and irregular in terms of when generated. BACHS will conduct a waste assessment once the site is operational to determine the additional types and quantities of wastes that may be generated. Following this, appropriate management systems will be implemented and where necessary generators advised of these management requirements.

It is not expected that significant quantities of garden waste will be generated. The appointed gardener will be required to manage this waste by disposal at a composting facility.

2.2 Waste Generation Estimates

The following show the estimated waste generated from the various components of the development (based on the profile of the development as provided) – these estimates are based on averages for quantity of waste generated and composition as determined by industry data (ie., data/information provided by Tandem Solutions waste audits conducted in the healthcare sectors and specifically this type of healthcare facility).

It is estimated that the development will generate a total of approximately (per week):

- General waste – 480 litres
- Clinical waste – 120 litres
- Paper and cardboard – 120 litres
- Comingled recycling – 200 litres

Note that actual types and volumes of the various wastes will be dependent on the type of patient services as well as treatments delivered (eg., numbers of outpatients). With healthcare, this can fluctuate according to time of year and changes in treatments and services.

There is also the need to ensure there is contingency planning for such events as seen with COVID-19 waste generation and implementation of management systems for the additional wastes generated.

However, this issue is one that healthcare facilities recognise and are equipped to manage in terms of systems implemented to manage those changes in waste types and volume generated.

Based on these estimates of the volume of waste/recyclables generated, there is a need for (based on a weekly collection schedule):

- General waste – 2 x 240 litre mobile garbage bins
- Clinical waste – 1 x 120 litre mobile garbage bins¹
- Paper and cardboard – 1 x 120 litre mobile garbage bins
- Comingled recycling – 1 x 240 litre mobile garbage bin

The proposed waste storage area has capacity for more than the required number of mobile garbage bins.

¹ Note that any used sharps containers will be placed into this mobile garbage bin

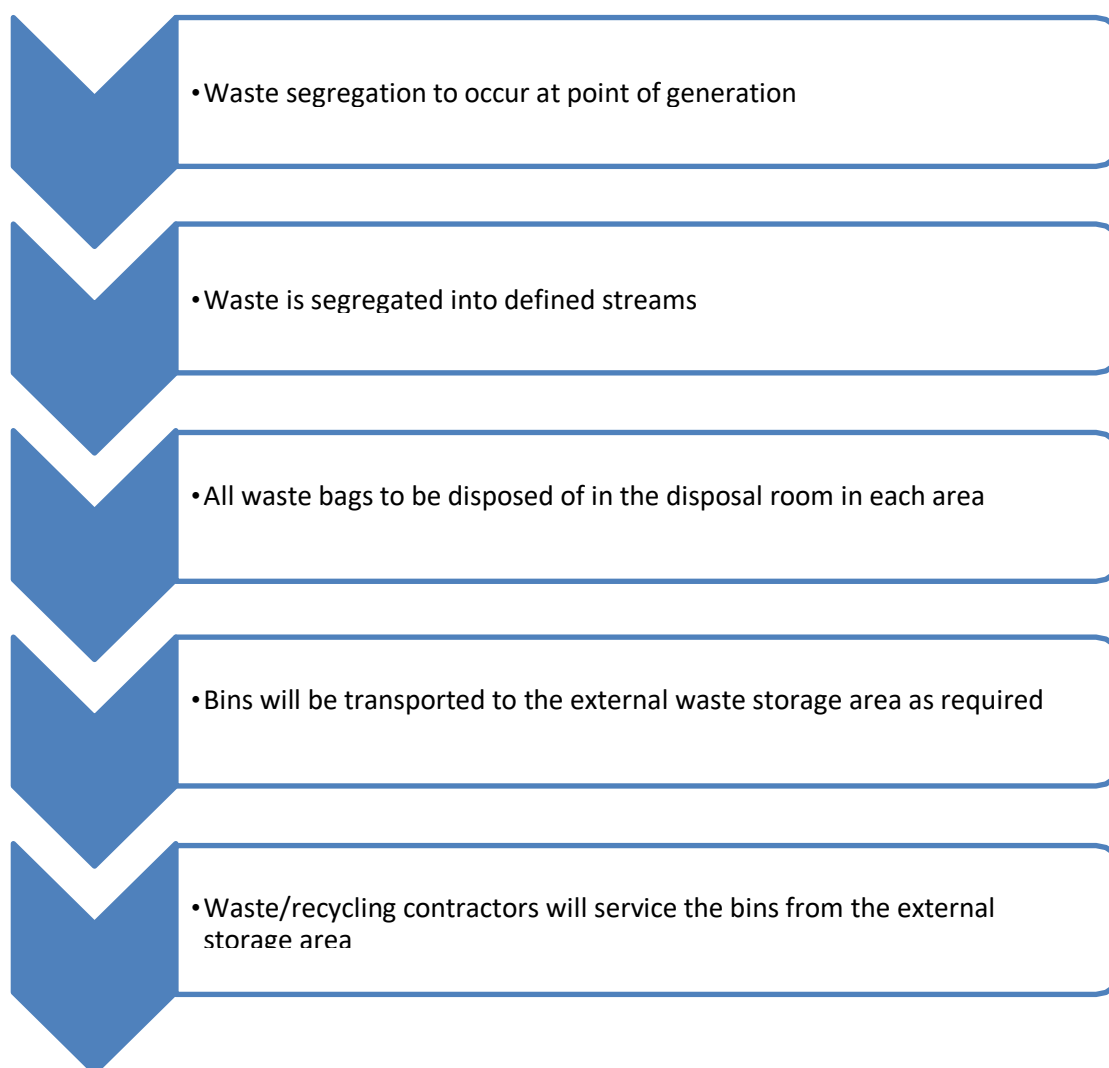
3. Waste Management Systems/Practices

3.1 Overview

Guidance for determining “best practice” waste management for this Development has been obtained from the Waste Management Association of Australia, *Biohazardous Waste Industry Group, Manual for the Management of Biohazardous Waste*, 8th edition, 2020², NSW Health Policy Directive (*Clinical and Related Waste Management for Health Services*), 14th December 2020 and NSW EPA.

All aspects of waste management will be in accordance with both legislative and NSW health requirements. In addition, the recommendations contained in the various industry specific guidance publications will be implemented as appropriate.

The following summarises the process for waste management.



² This publication is referred to by a number of Government agencies as representing “best practice” for the management of biohazardous waste generated within healthcare facilities.

The basic approach for management of wastes/recyclables will be:

- Waste will be segregated at the point of generation and placed in designated waste containers.
- Waste bins and receptacles will be emptied by cleaning staff.
- Bagged waste and receptacles for collection will be transferred by cleaning staff to the external bin enclosure for routine collection by contracted waste management services.
- General waste collection will be weekly on Wednesday.
- Collections of clinical waste and recyclables will be undertaken weekly with days/times to be negotiated with the relevant contractors.

Waste and recycling bins will be located in dirty utility rooms, office spaces, cleaner's rooms and patient areas as required for the activities conducted in each specific department/area. As part of the facilities' continual improvement program, reviews of the location, type and size of waste/recycling containers will be undertaken on a regular basis.

Note that all bins will be posted with signage indicating what materials can be deposited into them.

3.2 Waste Storage Area

The design of the storage area will be such to prevent unauthorised access, prevent access by animals (eg., birds), ensure that bins are not exposed to weather and any spilt material is contained – this will be by the provision of a hard stand, walls that also allow ventilation, and roofed.

Access to water will be provided so as to enable washdown as required. In addition, a spill kit will be located in the storage area.

In keeping with best practice sustainability programs, all waste areas; reuse areas and waste and recycling bins will be clearly differentiated through appropriate signage and colour coding to Australia Standards to reflect the materials contained.

The waste storage area will be accessed by the healthcare facility and waste/recycling contractor staff only.

The following illustrate signage that can be used.





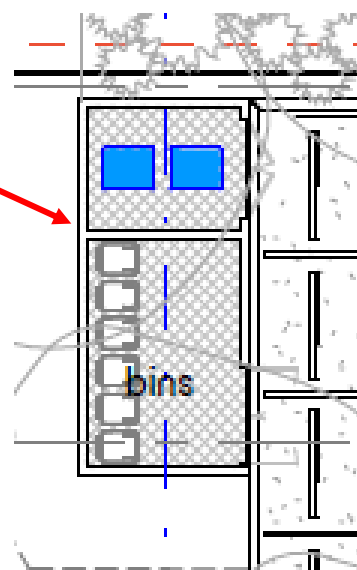
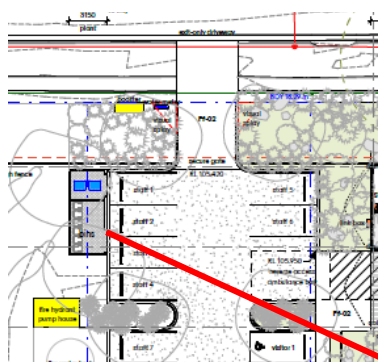
The following are alternate types of signs and are available from:

<https://www.sustainability.vic.gov.au/Government/Signage-and-resources/Public-place-waste-signage> and are free to download.





The following illustrates the location of the waste storage area:



3.3 Servicing

Contractors servicing the waste/recycling streams will enter the facility in a forward direction (in the entry only driveway), service the appropriate bins and then leave the facility also in a forward direction (via the exit only driveway).

3.4 Ongoing Management

Having suitable systems in place is only one element of an effective waste management system. Compliance by all stakeholders is essential.

Cleaners:

Cleaners should be required to provide feedback to BACHS about any non-compliance issues they observe during their cleaning activities, such as contamination, non-participation, or missing or damaged bins. This allows issues to be dealt with promptly by BACHS.

Waste Contractors:

The waste/recycling contractor will be required to report actual quantities collected by stream so that BACHS can monitor performance and feed this back to staff. Specific Key Performance Indicators for performance should be included in waste and recycling contracts.

The waste contractor should also be required to participate in ongoing reviews and provide updates on new opportunities that may allow the facility to further increase their diversion from landfill.

4. Waste Management Education

All waste management strategies (particularly resource management programs), rely on all staff to participate and co-operate in order to ensure that objectives are at least met. Staff therefore must receive appropriate training/education or else they are not going to know what to do.

All staff and contractors shall attend a waste management training session.

This is to be conducted during all induction programs in the first instance.

For those staff and contractors currently employed on-site, they will be required to attend a dedicated training session so that they are fully aware of their roles and responsibilities in respect to waste management.

Records shall be maintained of all staff and contractors' attendance at a training session to ensure that all personnel attend.

All staff will receive information regarding the waste collection systems including how to use the system, which items are appropriate for each stream and collection times. Appropriate signage and updated information will also be provided, as well as receiving feedback on issues such as contamination of the recycling stream or leakage of the recyclables into the general waste. BACHS will have the responsibility for these tasks.

All waste receptacles will be appropriately signed and additional room signage is usually provided from most waste contractors during implementation of the waste contract.

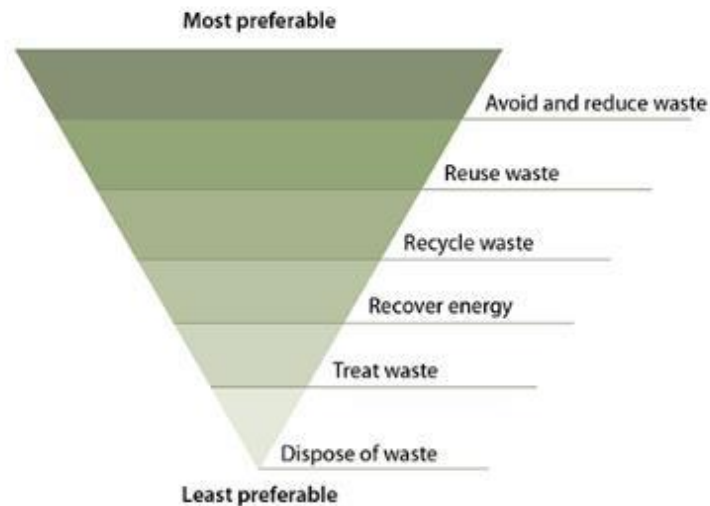
It is recommended that all signs should:

- Clearly identify the waste/recycling stream;
- Use correct waste/recycling stream colour coding;
- Identify what can and cannot be disposed of in the receptacle; and
- Include highly visual elements to accommodate for individuals with inadequate English literacy.
- As part of the staff (and resident) induction and welcoming process, a waste and recycling toolkit will be provided. This toolkit will include the details of each of the systems in place; acceptance criteria for each stream and how each stream is managed.

5 Construction Waste Management Principles

5.1 Waste Management Principles

The following waste hierarchy will be used as a guiding principle:



Avoid and Reduce

Minimise the production of waste materials in the construction process by:

- Assessing and taking into consideration the resultant waste from different, design and construction options
- Purchasing materials that will result in less waste, which have minimal packaging, are pre-cut or fabricated.
- Not over ordering products and materials

Reuse

Ensure that where ever possible, materials are reused either on site or offsite.

- Identify all waste products that can be reused
- Put systems in place to separate and store reusable items
- Identify the potential applications for reuse both onsite and offsite and facilitate reuse

Recycling

Identify all recyclable waste products to be produced on site.

- Provide systems for separating and stockpiling of recyclables
- Provide clear signage to ensure recyclable materials are separated
- Process the material for recycling either onsite or offsite

Note: In some cases, it may be more economical to send the unsorted waste to specialised waste contractors who will separate and recycle materials at an offsite location.

Disposal

Waste products which cannot be reused or recycled will be removed and disposed of. The following will need to be considered:

- Ensure the chosen waste disposal contractor complies with regulatory requirements
- Implement regular collection of bins

Section 143 of the Protection of the Environment Operations Act 1997 requires waste to be transported to a place that can lawfully accept it. It will be the responsibility of the site developers to ensure all contractors clearly specify where all wastes are to be transported, the capacity of the nominated facilities to receive/manage the waste and to ensure that reports on management aspects (types, quantities and disposal pathways) are provided.

5.2 Liquid Waste

Liquid waste may be produced on site for environmental control measures such as:

- Site and vehicle cleaning
- Dust control waste

The following measures will be taken to minimise the impact of liquid waste:

- Ensure water is used in moderation and no taps are left continuously running
- Use any grey water produced on site for irrigation or for dust suppression
- Only discharge clean water into storm water

5.3 Stormwater Pollution Prevention

All actions will be undertaken to avoid pollution entering stormwater drains and for litter generation. The following will be initiated:

- i. Prior to commencement of any works a Safe Work Method Statement will be completed and reviewed to determine potential for stormwater pollution and/or litter generation
- ii. The proponent (contractor), will need to develop a management strategy to manage the potential for these issues to be realised
- iii. Site inspections will be conducted during the working day to monitor potential for stormwater pollution generation and where identified, works will cease until appropriate controls are implemented
- iv. Waste water and storm water will be managed and disposed of in accordance with Water Authority requirements.

5.4 Litter Management

- i. Daily site inspections will be conducted to identify litter, remedy the situation and investigate the cause so as to reduce the potential for the issue to occur in the future.

- ii. Sufficient quantities of bins (and/or bin space), will be made available so as to avoid dumping of materials outside bins
- iii. All waste/recycling bins will have covers so as to ensure that wastes cannot be blown out during windy conditions. This will also apply to relevant stocks of materials to be used in construction.
- iv. Personnel will be allocated the role of litter management in that they will periodically inspect the site and surrounds for litter and if identified collect and dispose of it.

5.5 Records

Records will be kept of all wastes and recyclables generated and either used on site, or transported off-site during the construction stages of the development.

It will be a condition of appointment that all waste/recycling contractors involved in the construction stages provide these records, and that they also contain details of the facilities that the materials are transported to.

These records will be made available to Council on request.

5.6 Waste/recyclables storage (on-site)

All waste and recycling materials will be stored in bins provided by the appointed contractor(s). These bins will be appropriately coloured and signed to indicate what materials are to be deposited into them and located so as to maximise the recovery of reusable/recyclable materials.

As construction activities progress, the designated bins will be moved so as to maximise the collection of materials that will be diverted from landfill. This will also involve relocating signage advising as to correct waste management.

5.7 Waste/recyclables treatment (on-site)

There will be no treatment of wastes or recyclables on-site except for possible removal of contaminants prior to forwarding to off-site recyclers.

6 Construction Waste Profile

6.1 Overview

The following summarises the types, quantities and management systems for construction materials that may be generated during construction.

The quantity of waste materials to be generated onsite are estimates and therefore the systems that will be put in place need to incorporate flexibility to allow for variation in the total quantities generated. Active site management during the construction phase will ensure all waste/recyclable materials are disposed of appropriately and that all waste receptacles are of sufficient capacity to manage onsite activities.

Finalisation of the system(s) that will be implemented for the recovery of materials and for disposal of others to landfill will occur following appointment of contractor(s). A component of the appointment will be that contractors will be required to provide data as to the disposal pathway (eg., materials, volumes and final disposal site), as well as a validation process for this information.

The appointed contractor(s) will also be responsible for sourcing speciality recycling facilities for the materials that cannot be reused on site

Waste management systems – construction

Materials on site			Destination	
Type of material	Estimated volume (m ³)	On-site (Reuse or recycle)	Off-site (Detail contractor and recycling contractor)	Disposal (Detail contractor and landfill site)
Concrete	5m ³	Separated on site and crushed for use in pavement construction where possible	Collected by contractor and disposed at concrete recycling facility	Facility TBA upon appointment of contractor
Timber	40m ³	Separated and where feasible, reused for further formwork	Unused material separate and stockpiled onsite. Collected by specialist timber subcontractor for recycling	Facility TBA upon appointment of contractor

Materials on site			Destination	
Type of material	Estimated volume (m ³)	On-site (Reuse or recycle)	Off-site (Detail contractor and recycling contractor)	Disposal (Detail contractor and landfill site)
Excavation material (non-contaminated soil and rock)	30m ³	Will either be stockpiled for use during construction if required and if not disposed off-site.	Excavation materials will be used as clean fill by the appointed contractor	No disposal to landfill
Metals	10m ³	No on-site reuse	Collected by specialist metal subcontractor for recycling	Facility TBA upon appointment of contractor
Plasterboard	10m ³	No on-site reuse	Collected by the contractor for recycling.	Facility TBA upon appointment of contractor
Mixed hard plastics	15m ³	No on-site reuse	Collected by contractor for recycling.	Facility TBA upon appointment of contractor.
Glazing	1m ³	No on-site reuse	Recyclers consulted as to potential for recycling and if suitable separated for recycling.	Facility TBA upon appointment of contractor
Mixed Recyclables	30m ³	No on-site reuse	Contractor appointed to collect and recycle	No disposal to landfill. Facility TBA upon appointment of contractor

Materials on site		Destination		
Type of material	Estimated volume (m ³)	On-site (Reuse or recycle)	Off-site (Detail contractor and recycling contractor)	Disposal (Detail contractor and landfill site)
General waste	80m ³	No on-site reuse	No recycling or reuse	Facility TBA upon appointment of contractor

7 Contracts and purchasing

Each subcontractor working on the site will be required to adhere to this Waste Management Plan.

The Head Contractor will ensure each subcontractor:

- Takes practical measures to prevent waste being generated from their work
- Implements procedures to ensure waste resulting from their work will be actively managed and where possible recycled, as part of the overall site recycling strategy or separately as appropriate
- Ensures that the right quantities of materials are ordered, minimally packaged and where practical prefabricated. Any oversupplied materials are returned to the supplier
- Implements source separation of off cuts to facilitate reuse, resale or recycling.

The Site Manager will be responsible for:

- Ensuring there is a secure location for on-site storage of materials to be reused on site, and for separated materials for recycling off site.
- Engaging appropriate waste and recycling contractors to remove waste and recycling materials from the site
- Co-coordinating between subcontractors, to maximise on site reuse of materials
- Monitoring of bins on a regular basis by site supervisors to detect any contamination or leakage
- Ensuring the site has clear signs directing staff to the appropriate location for recycling and stockpiling station/s. And that each bin/skip/stockpile is clearly sign posted
- Providing training to all site employees and subcontractors in regards to the WMP as detailed in Section 8 below.

Should a subcontractor cause a bin to be significantly contaminated, the Site Manager will be advised by a non-conformance report procedure. The offending subcontractor will then be required to take corrective action, at their own cost. The non-conformance process would be managed by the Head Contractors' Quality Management Systems

8 Training and Education

All site employees and sub-contractors will be required to attend a site specific induction that will outline the components of the WMP and explain the site specific practicalities of the waste reduction and recycling strategies outlined in the WMP.

All employees are to have a clear understanding of which products are being reused/recycled on site and where they are stockpiled. They are also to be made aware of waste reduction efforts in regards to packaging.

The site manager will post educational signage in relation the recycling activities on site in breakout areas, lunch rooms etc.