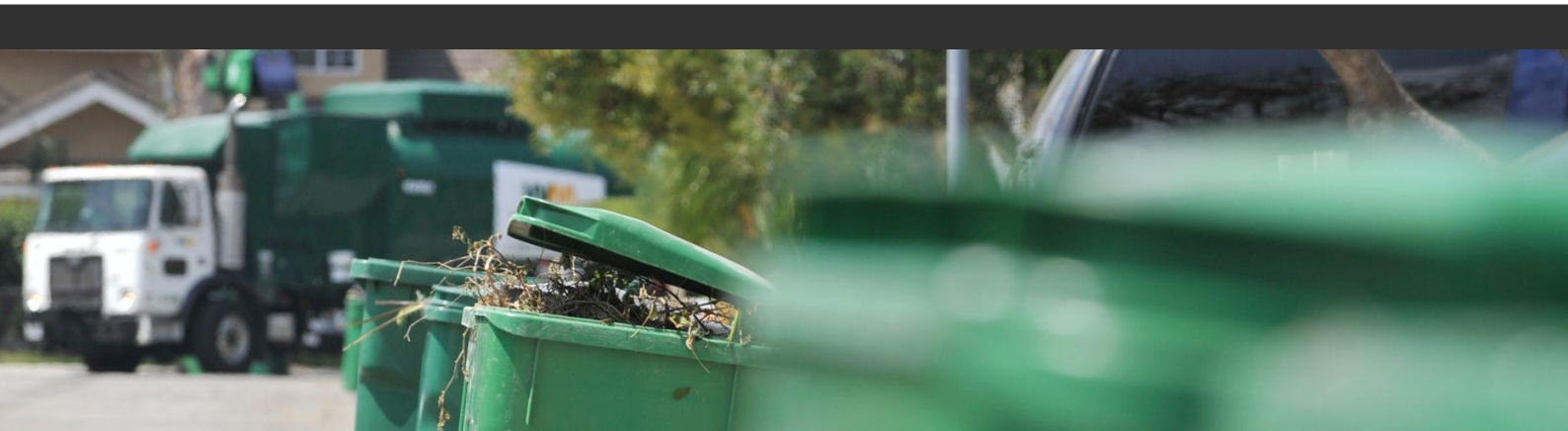


**Griffith BESS**  
Waste Management Plan  
SSD-85372970



250170WMP001C-F  
12 November 2025

# onemilegrid

ABN: 79 168 115 679

(03) 9939 8250  
Wurundjeri Woiworung Country  
56 Down Street  
**COLLINGWOOD, VIC 3066**  
[www.onemilegrid.com.au](http://www.onemilegrid.com.au)



## DOCUMENT INFORMATION

<b>Prepared for</b>	Eku Energy on behalf of Griffith BESS Co Pty Ltd		
<b>File Name</b>	250170WMP001C-F	<b>Report Date</b>	12 November 2025
<b>Prepared by</b>	JAR	<b>Reviewed by</b>	VPG

**onemilegrid** operates from Wurundjeri Woiworung Country of the Kulin nation. We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.

© One Mile Grid Pty Ltd. This document has been prepared by **onemilegrid** for the client as per the terms of engagement. It may not be modified or altered, copied, reproduced, sold or transferred in whole or in part in any format to any person other than by agreement. **onemilegrid** does not assume responsibility or liability to any third party arising out of misuse of this document.

## CONTENTS

1	INTRODUCTION.....	4
2	PURPOSE .....	4
3	NSW WASTE AND SUSTAINABLE MATERIALS STRATEGY 2041 .....	5
4	EXISTING SITE CONDITIONS.....	6
5	PROPOSED DEVELOPMENT .....	7
6	WASTE OVERVIEW .....	8
6.1	Construction .....	8
6.2	Operation.....	8
6.3	Decommissioning .....	8
7	CONSTRUCTION WASTE.....	9
7.1	Waste Generation.....	9
7.2	Implementation .....	10
7.3	Waste Management Facilities.....	10
7.4	Collection .....	10
7.5	Noise Control.....	11
8	OPERATIONAL WASTE .....	12
8.1	Overview.....	12
8.2	Waste Streams.....	12
8.2.1	Garbage .....	12
8.2.2	Recycling.....	12
8.2.3	Return and Earn Scheme.....	12
8.2.4	Green Waste .....	12
8.2.5	Hard Waste.....	12
8.3	Waste Generation and Bin Provision .....	13
8.4	Bin Storage.....	13
8.5	Bin Usage .....	14
8.6	Bin Collection .....	14
8.7	Bin Cleaning .....	14
8.8	Signage .....	14
9	DECOMMISSIONING WASTE.....	15
10	MANAGEMENT.....	16
10.1	General .....	16
10.2	Staff Information .....	16
11	OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES.....	16
12	CONTACT INFORMATION.....	17
12.1	Council.....	17
12.2	Others.....	17

## TABLES

Table 1	Waste Generated and Management.....	9
Table 2	EPA NSW Waste Generation Rates – Litres per 100 m <sup>2</sup> per day .....	13
Table 3	Bin Specifications .....	13
Table 4	Bin Colours .....	13

## FIGURES

Figure 1	Site Location.....	6
Figure 2	Waste Collection Access Route .....	11
Figure 3	Example Waste Signage .....	14

## 1 INTRODUCTION

---

**onemilegrid** has been requested by Eku Energy on behalf of Griffith BESS Co Pty Ltd to prepare a Waste Management Plan for the proposed Battery Energy Storage System (BESS) development at 15 Bob Irvin Road, Yoogali. The proposed BESS, hereafter referred to as the Griffith BESS, is a State Significant Development, SSD-85372970. This Waste Management Plan forms part of the Environmental Impact Assessment which has been prepared by Cogency Australia Pty Ltd (Cogency) to support assessment of the project.

This waste management plan has been prepared to address the Planning Secretary's Environmental Assessment Requirements (SEARs), with the relevant waste item highlighted below:

*Identify, quantify and classify the likely waste stream to be generated during construction, operation, and decommissioning, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste (in consultation with waste facilities, including Council)*

The preparation of this management plan has been undertaken with due consideration of the NSW Waste and Sustainable Materials Strategy 2041 and relevant Council documentation.

## 2 PURPOSE

---

The purpose of the waste management plan is to:

- Demonstrate the development of an effective waste management system that is compatible with the construction, operation and decommissioning of the proposed development and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfill, and maximises recycling;
- Provide a waste management system that is supported by scale drawings to ensure the final design and construction of the development is compliant with the waste management plan (WMP) and is verifiable;
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation. Stakeholders are defined (but not limited to): owners, occupiers, owners corporations, property managers/real estate agents, Council, neighbours and collection contractors;
- Ensure construction personnel and operational staff are not disadvantaged in their access to recycling and other responsible waste management options;
- Avoid existing legacy issues that plague many developments due to poor design and insufficient consideration for waste management; and
- Improve outcomes for compliance with regulatory tools and state Planning Strategies.

### 3 NSW WASTE AND SUSTAINABLE MATERIALS STRATEGY 2041

---

Originally published by the Department of Planning, Industry and Environment, the NSW Government Waste and Sustainable Materials Strategy 2041 is now overseen by the NSW Environment Protection Authority (EPA). The strategy sets a long-term vision for transitioning to a circular economy, reducing waste, and improving resource recovery across New South Wales. The updated objectives and targets include:

- Reduce total waste generation by 10% per person by 2030;
- Achieve an 80% average recovery rate from all waste streams by 2030;
- Phase out problematic and unnecessary plastics by 2025 and triple plastics recycling rates by 2030;
- Halve the amount of organic waste sent to landfill by 2030;
- Reduce litter by 60% by 2030 and plastic litter by 30% by 2025;
- Increase recycled content use in government and industry procurement.

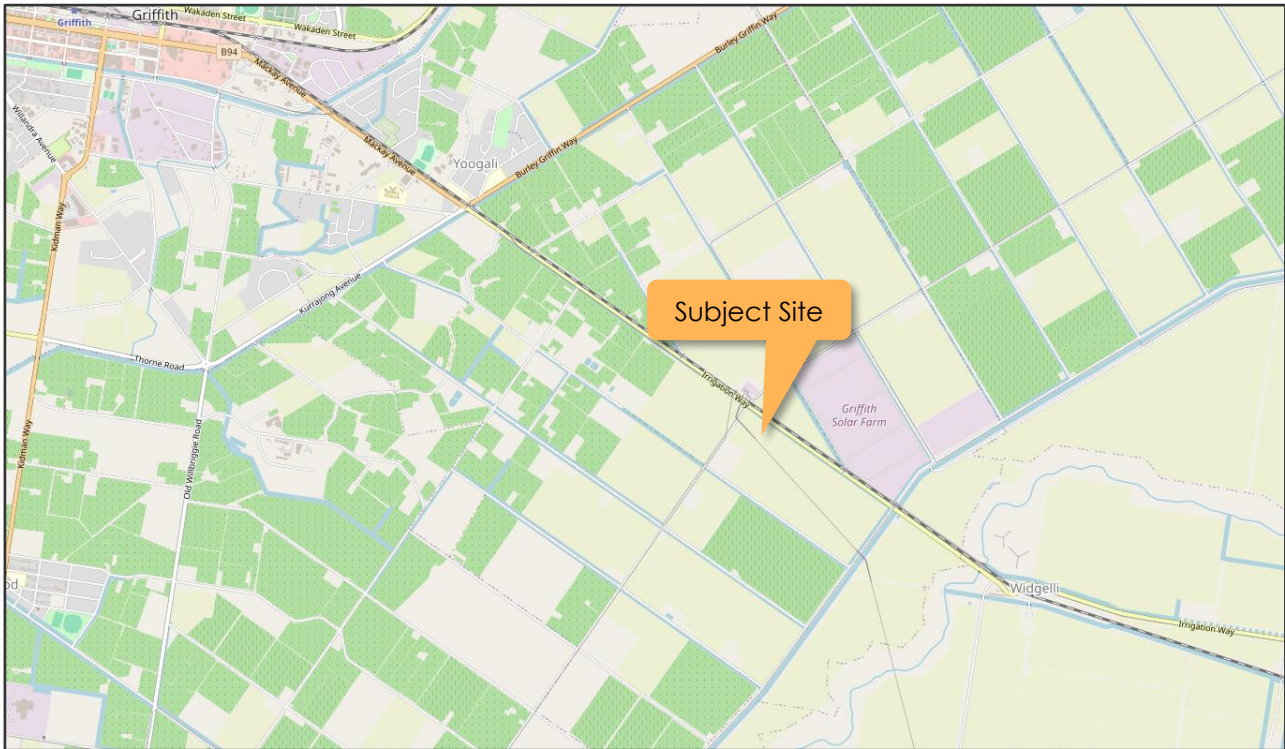
The strategy emphasizes designing out materials that end up in landfill or as litter, separating organics, and investing in infrastructure and innovation to support recycling and energy recovery. These actions aim to reduce emissions, create jobs, and ensure NSW has the capacity to manage waste sustainably.

## 4 EXISTING SITE CONDITIONS

The [subject site](#) is located on the south side of Irrigation Way, the east side of Bob Irvin Road, and the north side of Morley Road, and is located on the same land as the approved but yet to be constructed Yoogali Solar Farm project (DA: 291/2018) as shown in Figure 1.

The overall site is comprised of two lots currently titled as 1 & 2/ DP12527790, though the subject development is to be addressed as 15 Bob Irvin Road, Yoogali.

**Figure 1 Site Location**



Source: OpenStreetMap

The site has a frontage of approximately 320 m to Bob Irvin Road, with a minor abuttal of approximately 40 m to Bob Irvin Road in the northwest corner of the site.

The site largely accommodates rural farmland. A dwelling was previously located on the site of the Yoogali Solar Farm, though has now been demolished.

## 5 PROPOSED DEVELOPMENT

---

It is proposed to develop the site for the purposes of a nominal 100MW / 1,000 MWh Battery Energy Storage System (BESS), including associated infrastructure including inverters, a transformer, and a mixed underground and overhead cable connection to the Griffith Substation.

In addition to the key components outlined above, there will be temporary infrastructure required to facilitate the construction and decommissioning phases of the proposed BESS. The construction compound would likely include:

- Temporary construction offices;
- A site office; and
- Laydown areas.

These will all be accommodated within the subject site.

The proponent has outlined the site will accommodate up to 5 maintenance staff on-site during the typical operations of the site.

The proposed BESS units are to be located along the southern boundary of the site, with the Yoogali Solar Farm modules on the southern, northern and eastern peripheries of the site.

The proposed BESS will be co-located on the same land as the approved but yet to be constructed Yoogali Solar Farm.

## **6 WASTE OVERVIEW**

---

### **6.1 Construction**

The construction phase of the proposed BESS will generate a range of waste materials, including excavation spoil, concrete, metals, plastics, and packaging. These will be managed through a combination of on-site reuse, off-site recycling, and disposal at licensed facilities where necessary. Waste handling will be guided by a dynamic Construction Waste Management Plan, supported by site inductions, designated waste storage areas, and scheduled collections in line with EPA NSW guidelines.

### **6.2 Operation**

Waste generation during the operational phase is expected to be minimal due to the automated nature of the BESS facility. With only a small number of maintenance staff occasionally on-site, typical waste streams will include general garbage and commingled recyclables, with standard sized mobile bins provided for waste collection. Any additional waste from maintenance activities will be handled by contractors and removed from the site as needed.

### **6.3 Decommissioning**

At the end of the project's 25–30 year lifespan, decommissioning will involve the safe removal and disposal of electrical components, including batteries, transformers, and cables. Planning for this phase will prioritize reuse and recycling of materials, compliance with hazardous waste regulations, and alignment with evolving recycling technologies. A detailed waste management plan will be developed to ensure environmental responsibility and regulatory compliance.

## 7 CONSTRUCTION WASTE

### 7.1 Waste Generation

Different waste management methods have been outlined for each type of material waste generated during the construction period, as shown in Table 1 below.

**Table 1 Waste Generated and Management**

<b>Materials</b>	<b>Reuse?</b>	<b>Recycle?</b>	<b>Disposal?</b>	<b>Method of on-site reuse, contractor and recycling / waste facility to be used.</b>
Excavation Materials	✓	✗	✓	Excavated material will be reused as fill across the site. Where excavated material cannot be reused across the site, such as due to contamination, it will be disposed of following treatment by a licensed operator.
Concrete	✗	✓	✗	Excess concrete will be transferred to a recycling facility.
Metals	✗	✓	✗	Transferred to an appropriate recycling facility.
BESS Batteries	✗	✓	✓	The BESS Batteries are manufactured off-site and are therefore not expected to generate waste. Notwithstanding, there is the possibility that the BESS Batteries fail during electrical commissioning. In this case the batteries will be returned to the supplier for maintenance or recycling/disposal.
Plastics	✗	✓	✗	Plastic waste associated with packaging material will be transferred to an appropriate recycling facility or alternatively returned to the supplier for reuse.
Containers	✗	✓	✗	Transferred to an appropriate recycling facility.
Paper / Cardboard	✗	✓	✗	Transferred to an appropriate recycling facility.
Garbage	✗	✗	✓	Transferred to Council waste management facility.
Other	✗	✗	✗	N/A.

## 7.2 Implementation

The specific waste management during the construction phase will be provided as part of the construction management plan included as part of the construction certificate process.

The implementation and coordination of the Construction Waste Management Plan is the responsibility of the appointed building contractor, and should be a dynamic document, reflecting changes in on-site and off-site conditions e.g., varying waste generations or changing waste collection methodology. As such, the plan should be regularly revisited and amended to provide the most accurate and relevant information to achieve the desired objectives of effectively managing the storage and disposal of waste generated during construction.

All personnel engaged during the construction phase of the project are required to complete site-specific induction training focused on waste management procedures. Employees will participate in an induction that details their responsibilities and the methods for implementing the waste management protocols. The induction training should include the following:

- Waste storage locations and the require separation of waste;
- Waste transfers on-site;
- Responsibility and reporting.
- Emergency procedures;
- Any legal obligations; and
- The consequences of poor waste management practices.

## 7.3 Waste Management Facilities

Dedicated bins or storage areas will be provided within the site, allowing for the separation and collection of waste streams generated during the construction process.

All on-site waste management facilities should be designed and located:

- To allow easy access for waste disposal and collection;
- To be sufficiently sized to accommodate the quantity of waste generated, whilst allowing for source separation of recyclable materials; and
- To be securable, weatherproof, well ventilated, and clearly signed to ensure appropriate use.

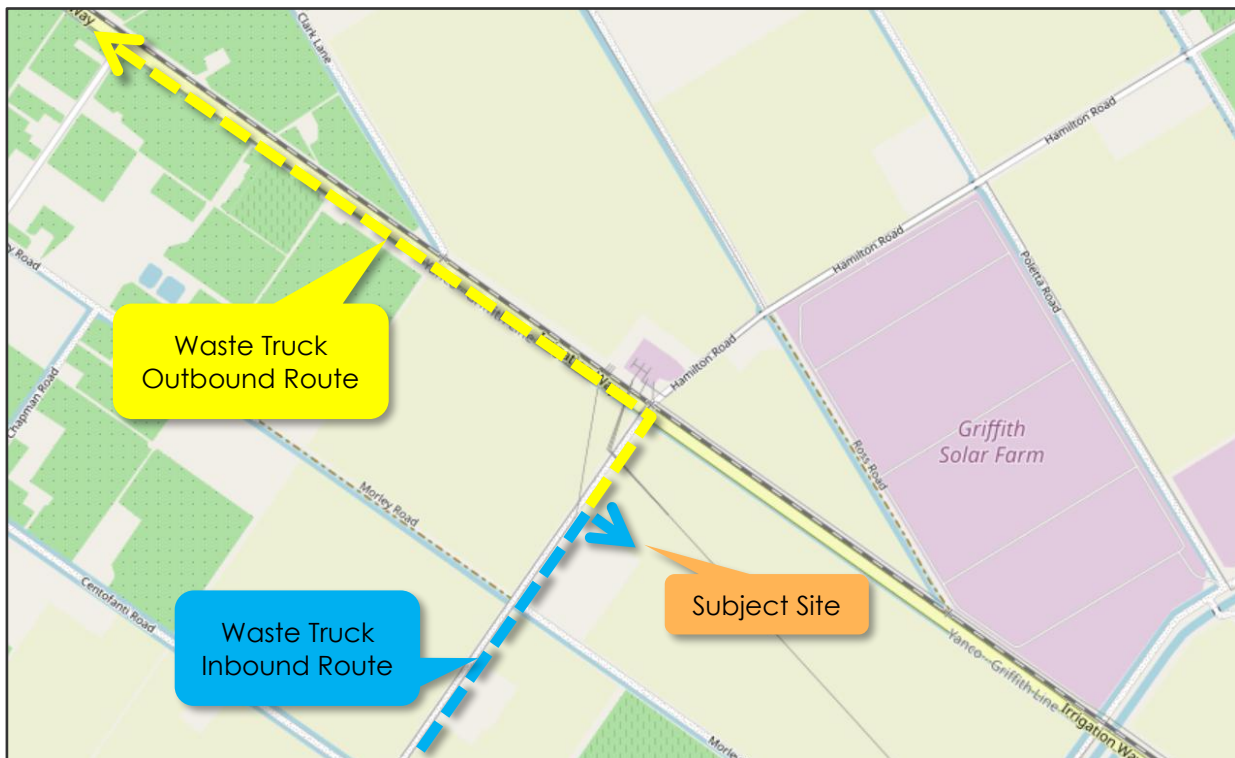
## 7.4 Collection

Waste collection will be performed on-site utilising the loading facilities provided to construct the development.

All collection vehicles will be required to enter and exit the site from Bob Irvin Road in a forward direction using the existing access point.

The proposed waste collection access route is provided below in Figure 2, with vehicles entering from the south and exiting to the north, as discussed within the route in the Transport Impact Assessment.

**Figure 2 Waste Collection Access Route**



Source: OpenStreetMap

Proximate recycling and waste transfer stations to the site include the following:

- Tharbogang Waste Management Centre – Hillside Drive, Tharbogang NSW 2680;
- Yenda Landfill – McManus Road, Yenda 2681.

## 7.5 Noise Control

To minimise the disturbance to the surrounding areas during waste collection, collections should occur in accordance with the EPA NSW standard hours of construction, which are as follow:

- ✦ 7:00am to 6:00pm, Monday to Friday;
- ✦ 8:00am to 1:00pm, Saturday
- ✦ No construction/waste collection on Sunday and Public Holidays;

## 8 OPERATIONAL WASTE

---

### 8.1 Overview

During the operations of the site, it is generally anticipated that the waste generation of the site will be low, with the site being largely automated and requiring minimal human intervention.

An assessment of the likely waste generated during the operations follows.

### 8.2 Waste Streams

#### 8.2.1 Garbage

The garbage stream comprises of non-recyclable material which is to be disposed of in landfill.

A mobile garbage bin will be provided for the collection and disposal of garbage.

#### 8.2.2 Recycling

The commingled recycling stream is a mixed material stream consisting of paper, cardboard, cans, plastics, and glass (where not collected as part of a separate glass collection service).

A mobile garbage bin will be provided for the collection and disposal of recycling.

#### 8.2.3 Return and Earn Scheme

The Return and Earn scheme rewards NSW residents with a 10c refund for all eligible cans, cartons and bottles that are returned. Most aluminium, glass, plastic, and liquid paperboard (carton) drink containers, between 150 mL and 3 litres are eligible, with a 10c mark provided on the drink container label, often located near the barcode. Container lids are able to be kept on, as they can also be recycled.

There are multiple ways to receive the 10c refund, including vouchers, which can be spent at participating shops, cash, electronic payment, and the option to donate the refund to charities and community groups.

The eligible containers can be returned to several different types of container refund points, in many locations across NSW, with the number of locations expected to continue to grow. The locations of the Return and Earn refund points are provided at <https://returnandearn.org.au/map/>.

#### 8.2.4 Green Waste

It is expected that any maintenance and gardening undertaken on the site will be managed by a contractor appointed by the operator. Given the expansive nature of the site, green waste, such as grass clippings, is expected to be dispersed across the site, with cuttings typically left in place.

#### 8.2.5 Hard Waste

Hard waste generation is expected to be minimal and will be stored on-site and collected by a private contractor on an as-need basis.

## 8.3 Waste Generation and Bin Provision

During the typical operations of the site, the functions of the BESS units are largely automated, with each BESS unit being controlled via designated computational systems, independent of any human activity or physical intervention. While the proposed development is expected to create 5 to 10 full-time equivalent staff, these roles are primarily remote, and the site itself is not expected to be regularly staffed. As such, day-to-day waste generation is anticipated to be minimal, with no major deliveries and no manufacturing or distribution of physical goods occurring on-site. Waste requirements will be specific to the use though are expected to be limited in volume.

Waste generation rates for a range of commercial properties were estimated by the EPA NSW, based on a survey of a range of different businesses in August 2012. For reference, the waste generation rates for an office is shown in Table 2 below, which captures standard waste generated by on-site employees such as food waste, cardboard waste, paper waste etc.

**Table 2 EPA NSW Waste Generation Rates – Litres per 100 m<sup>2</sup> per day**

<i>Land Use</i>	<i>Garbage</i>	<i>Recycling</i>
Offices	8	6

Assuming an office building with an area of 600 m<sup>2</sup>, considered a conservative estimate based on the site's concept plans, the site is expected to generate a maximum of 240 litres of garbage and 180 litres of recycling waste per week, based on a five-day work schedule. It is therefore expected that 240 L mobile bins will be appropriate to cater for the collection and disposal of garbage and recycling waste generated during the operations of the site. It is expected that weekly collections of garbage and recycling waste will be appropriate, however the proponent will be responsible for monitoring the volume of waste and adjusting the collection frequency if required.

Further to the above, it is expected that major maintenance and inspections will occur annually. It is expected that any waste generated during major maintenance will be removed from the site by maintenance personnel, or if necessary separate waste collections scheduled.

Typical bin specifications for 240 L bins are provided in Table 3 below.

**Table 3 Bin Specifications**

<i>Capacity</i>	<i>Width</i>	<i>Depth</i>	<i>Height</i>	<i>Area</i>
240 litres	0.60 m	0.75 m	1.10 m	0.45 m <sup>2</sup>

Bins are to be colour coded to the Australian Standard (AS4123), as shown in Table 4 below.

**Table 4 Bin Colours**

<i>Stream</i>	<i>Colour</i>
Garbage	Red lid and dark green or black body
Commingled Recycling	Yellow lid and dark green or black body
Organics	Light Green lid and dark green or black body
Glass	Purple lid and dark green or black body

## 8.4 Bin Storage

Detailed plans for the site have not been developed at this stage. It is expected that a bin storage area will be provided to accommodate at least two mobile garbage bins for garbage and recycling waste.

The bin storage area should be located appropriately for access by staff, and be vermin proof, and have appropriate ventilation, lighting and drainage.

## 8.5 Bin Usage

Staff or cleaning contractors will transport and dispose of garbage (bagged) and recyclables (non-bagged) in the provided bins, located in the bin storage room. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins.

## 8.6 Bin Collection

Bins for operational waste will be stored within a dedicated bin storage room. The waste collection vehicle will enter the site via Bob Irvin Road and prop adjacent the bin store, from where the bins will be transferred directly to the waiting truck for emptying. The bins will be returned to the bin storage area immediately following collection.

Each waste stream is to be collected by dedicated trucks and waste streams are not to be collected in one truck. Each waste stream is to be taken to dedicated waste facilities for disposal and processing.

## 8.7 Bin Cleaning

The operator shall ensure that the bins are kept in a clean state, to minimise odours and to discourage vermin. This may include regular cleaning by a third party, cleaning by the waste contractor, bin swapping by the waste contractor, or maintenance by staff.

Where cleaning is to be undertaken on-site, it should only occur in a designated bin cleaning area, provided with a drain connected to sewer.

## 8.8 Signage

To avoid contamination between garbage streams, bin lids will be colour coded in accordance with the Australian Standard (AS4123), to ensure the bin type is easily distinguishable. Furthermore, bins should include typical signage (preferably on the bin lid) to reinforce the appropriate materials to be deposited in each bin. Example signage is shown in Figure 3 below.

**Figure 3 Example Waste Signage**



## 9 DECOMMISSIONING WASTE

---

Planning for decommissioning should begin at project inception to ensure compliance, cost management, and environmental responsibility. The project has a lifespan of 25 to 30 years. At the end of the project life span, options such as repowering (replacing batteries with newer technology) or augmentation (adding capacity) should be considered before full decommissioning. If full decommissioning is required, a detailed waste management plan must be prepared. This plan should include:

- Safe de-energisation and isolation of all electrical systems.
- Removal and transport of battery units, transformers, electrical cables, and concrete foundations in compliance with hazardous material regulations.
- Maximizing reuse and recycling of components such as battery modules, inverters, and transformers, noting that recycling processes will evolve over time.
- Adherence to statutory requirements.

## 10 MANAGEMENT

---

### 10.1 General

The proponent and construction /decommissioning contractors shall encourage staff and stakeholders to participate in achieving the NSW Waste And Sustainable Materials Strategy 2041 targets by:

- Reduce and avoid waste generation through improved resource efficiency measures and industrial ecology partnerships;
- Separate recycling streams at source to enable collection separate from residual waste;
- Work with suppliers to reduce packaging and waste in supply chains;
- Implement and maintain best practice resource recovery systems;
- Actively seek other businesses that may use your waste as an input material in their business;
- Ensure that waste streams are collected by legitimate operators and taken to appropriate facilities;
- Specify and purchase recycled materials;
- Work with other producers to take responsibility for the end-of-life management of problem wastes; and
- Comply with regulations.

### 10.2 Staff Information

To ensure all staff and stakeholders are aware of their responsibilities with regard to waste and bin management, an information package will be provided by the proponent to all staff, including the following information:

- A copy of this Waste Management Plan;
- Methods and techniques for waste reduction and minimisation;
- Information regarding bin collection days and requirements;
- Staff responsibilities with regard to bin usage, storage, and collection; and
- Staff responsibilities with regard to litter and waste removal from the site.

## 11 OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES

---

The operator and construction/decommissioning contractors shall ensure compliance to all relevant OH&S regulations and legislation, including the following:

- SafeWork NSW – Codes of Practice.

## 12 CONTACT INFORMATION

---

### 12.1 Council

Griffith City Council

Phone: 1300 176 077

Web: <https://www.griffith.nsw.gov.au>

### 12.2 Others

NSW Environmental Protection Authority (EPA)

Services: Environmental Regulator

Phone: 131 555

Web: [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

Email: [info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au)