

OPERATIONAL WASTE MANAGEMENT PLAN (OWMP)

NEW HIGH SCHOOL IN BUNGENDORE

Revision Number:VERSION 1Report Date:7/09/2021Presented by:SIMON LUNN
ECCELL ENVIRONMENTAL MANAGEMENT
35 WAVERLEY CRESCENT
BONDI JUNCTION NSW 2022
www.eccellenvironmental.com.auPrepared for:School Infrastructure NSW



TABLE OF CONTENTS

1	INTRODUCTION1				
	1.1	INTRODUCTION1			
	1.2	PROPOSAL1			
	1.3	SITE DESCRIPTION			
2	PURF	POSE OF THIS REPORT			
3	LEGIS	SLATIVE REQUIREMENTS AND GUIDELINES			
	3.1	LEGISLATION AND REGULATIONS			
	3.2	EDUCATIONAL FACILITIES STANDARDS AND GUIDELINES (EFSG)			
	3.3	GREEN STAR DESIGN & AS BUILT 08A			
4	WAS	TE GENERATION7			
	4.1	WASTE TYPES			
	4.2	WASTE HIERARCHY			
5	WAS	TE ESTIMATES 10			
	5.1	ESTIMATE OF QUANTITIES			
	5.2	ESTIMATE OF QUANTITIES			
	5.3	STORAGE AREA SIZE ESTIMATES 11			
	5.4	WASTE STORAGE AREA 11			
	5.5	WASTE FACILITIES MAINTENANCE			
6	WAS	TE MANAGEMENT 12			
	6.1	WASTE STORAGE SYSTEMS			
	6.2	WASTE MOVEMENT			
	6.3	WASTE COLLECTION POINT			
	6.4	VEHICLE MOVEMENTS			
	6.5	COLLECTION HOURS			
	6.6	CONTRACTORS			
	6.7	SEGREGATING WASTE			
7	ONG	OING MANAGEMENT 14			
	7.1	SIGNAGE14			
	7.2	EDUCATION & TRAINING15			
	7.3	ROLES & RESPONSIBILITIES			
8	REVI	EW PROCESS 16			
9	LIMI	rations			



APPENDICES

APPENDIX A – PROPOSED WASTE STORAGE AREA AND WASTE COLLECTION POINT	18
APPENDIX B – PROPOSED BIN LAYOUT	19
APPENDIX C – WASTE COLLECTION VEHICLE SWEPT PATHS	20
APPENDIX D – EXAMPLES OF APPROPRIATE WASTE SIGNAGE	21

LIST OF TABLES

Table 1 - Bungendore High School legal descriptions	1
Table 2 - Green Star Requirements	6
Table 3 - Potential Waste Types and Classifications & AS 4123.7	7
Table 4- Implementing the Waste Hierarchy	9
Table 5 - Weekly waste generation (Litres/week) across different schools	10
Table 6 - Waste Generation Estimates	11
Table 7 - Waste Pad Storage Area - Estimated Requirements	11
Table 8 - AS 4123.7 Waste Storage Requirements	15
Table 9 - Roles and Responsibilities	15

LIST OF FIGURES

Figure 1 Proposed site plan	. 2
Figure 2 - Site aerial depicting the land subject to the proposed High School Site	. 4
(Source: TKD Architects)	. 4
Figure 3 - Order of the Waste Hierarchy	. 9



DISCLAIMER

This report is based on information provided by TSA.

To that extent, this report relies on the accuracy of the information provided to the consultant. This report is not a substitute for legal advice on the relevant environmental related legislation, which applies to businesses, contractors or other bodies. Accordingly, EcCell Environmental will not be liable for any loss or damage that may arise out of this project.

DOCUMENT CONTROL					
ISSUE NUMBER	DATE	COMMENTS	AUTHOR	REVIEW	
VERSION 1	3/08/2021	lssue	Simon Lunn	Jo Drummond	
Version 1.1	6/08/2021	Updated section 6.4	Simon Lunn	Jo Drummond	
Version 1.2	ion 1.2 7/09/2021 Updated preamble & Simon Lunn		Jo Drummond		



1 INTRODUCTION

1.1 INTRODUCTION

This Operational Waste Management Plan (OWMP) accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD No 14394209). The SSDA is for a new high school located at Bungendore.

This report addresses the Secretary's Environmental Assessment Requirements (SEARs), notably:

SEARs Requirement	Response
• Identify, quantify and classify the likely waste streams to be generated during operation.	Table 5 & 8
• Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Section 4
• Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 5

1.2 PROPOSAL

The proposed development is for the construction of a new high school in Bungendore. The proposal has been designed as a stream 3 high school to initially provide for approximately 450 students with core 4 facilities aimed to future proof demand forecasted to 2036.

The site is located adjacent to the existing Bungendore Public School to the south enabling the creation of an education style precinct that will enable a cohesive connection between the two schools as well as the wider Bungendore community.

The proposal will include the demolition of the Bungendore Swimming Pool (to be relocated to Queanbeyan-Palerang Regional Council's proposed new Bungendore Sports Hub) and the Bungendore Community Centre; repurposing of existing council buildings; and the construction of new school buildings. New facilities for the high school will comprise of 24 general learning spaces; dedicated science and technology spaces; a gymnasium; library; canteen; outdoor learning and play areas that include two games courts.

A new agricultural plot is also proposed to the north of the main school site including a new agricultural building and scout storage shed, adjacent to the existing scout hall.

The proposal will also provide for shared administration and staff facilities between the high school and existing primary school and construction of a warm shell for community facilities including a community library, council shopfront and community health hub.

Additionally, miscellaneous off-site works, including upgrades to nearby road intersections and infrastructure, crossings, footpaths and the like will be provided to encourage active transport opportunities and respond to changing traffic conditions.





Figure 1 Proposed site plan

Source: TKD Architects



1.3 SITE DESCRIPTION

The proposed development is located within the Bungendore Town Centre within the local government area of Queanbeyan-Palerang Regional Council. The proposal involves the use of land which includes Bungendore Park bounded by Gibraltar Street, Majara Street, Turallo Terrace and Butmaroo Street, the existing former Palerang Council site at 10 Majara Street, the Majara Street road reserve bounded by Turallo Terrace and Gibraltar Streets and Nos. 2, 4 and 6 Majara Street (Refer to Table 1 below).

The site is approximately 29,205m2 in area and consists of a relatively flat topography. It contains part of Bungendore Park, existing Council buildings and maintained public open space areas. The land is mostly cleared of vegetation with some mature trees intersperse throughout subject lots.

The surrounding area generally includes low density residential developments to the north and west, an existing rail line to the east and Bungendore Public School and the Bungendore train station to the south and south west respectively.

Table 1 – New high school in Bungendore legal descriptions		
Property Address	Lot Numbers	
6-14 Butmaroo Street	Part Lot 701 DP1027107	
2 Majara Street	Lot 12 DP1139067	
4-6 Majara Street	Lot 13 DP1139067	
	Lot 14 DP1139067	
10 Majara Street	Lot 3 DP830878	
Butmaroo Street	Part Lot 701 DP96240	
Portion of Majara Street (between Turallo Terrace and Gibraltar Street)	N/A	





Figure 2 - Site aerial depicting the land subject to the proposed High School Site (Source: TKD Architects)

Revision #: V1



2 PURPOSE OF THIS REPORT

This purpose of this OWMP is to:

- Detail the type and quantity of waste to be generated during operation of the development;
- Advise the appropriate waste storage, source separation and collection facilities to maximise recovery of recyclables;
- Ensure waste management facilities are:
 - o safely and easily accessible to occupants and service providers; and
 - o appropriately sized for storage of the expected waste.
- Describe the handling, storage and disposal of all waste streams generated on site;
- Discourage illegal dumping and prevent large quantities of waste piling up by describing appropriate onsite storage and removal services; and
- Help facilitate landfill diversion targets of 75% of all waste generated as per the requirements of *NSW Waste Resource and Recovery Act 2014,* with scope to reach an aspirational target of 85% in anticipation of future mandatory targets as indicated in the *Cleaning Up Our Act: The Future for Waste and Resource Recovery in NSW. Issues Paper 2020.*

3 LEGISLATIVE REQUIREMENTS AND GUIDELINES

3.1 LEGISLATION AND REGULATIONS

Guidance documents and policies considered in the preparation of this OWMP are included below:

- NSW Environment Protection Authority (EPA) Waste Classification Guidelines 2014;
- NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012;
- NSW EPA's Waste Avoidance and Resource Recovery (WARR) Strategy 2014-21 with expected future guidelines to replace this during the operation phases of the development;
- Green Star Design & As Built Credit Criteria;
- State Significant Development Application (SSDA);
- Secretary's Environmental Assessment Requirements (SEARs);
- Educational Facilities Standards & Guidelines (EFSG) NSW Updated 2020; and
- Queanbeyan Development Control Plan 2012 (DCP, 2012).

3.2 EDUCATIONAL FACILITIES STANDARDS AND GUIDELINES (EFSG)

The EFSG section DG02 Ecologically Sustainable Development 2.7.2 Operational Waste requires new and refurbished schools to establish operational waste targets. The minimum targets adopted for the operation of waste for this school reflects those from NSW Waste and Resource Recovery Strategy 2014-21, released in December 2014 which are to:



- 1. increase recycling rates to 70% for municipal solid waste; and
- 2. increase total waste diverted from landfill to 75%.

By setting realistic achievable goals and performance targets, the OWMP is more likely to succeed, and the school is able to report on waste diversion and reduction targets in line with the Department of Education's waste contract to comply with State Significant Development conditions. Examples of key performance indicators that may be relevant include:



3.3 GREEN STAR DESIGN & AS BUILT 08A

Aim of Credit

The aim of the credit is to recognise projects that implement waste management plans which facilitate the re-use, recycling, or conversion of waste into energy, and stewardship of items to reduce the quantity of outgoing waste to landfill.

Table 1 - Green Star Requirements

	i oreen star negarements	
	8A PERFORMANC	E PATHWAY
Separation of waste streams	 The following waste streams must be provided with separate bins or containers: general waste; paper and cardboard; glass; plastic; and at least one other waste stream. Advice from the Green Building Council of Australia GBCA indicates that where the waste collection service collects recyclables as a comingled stream, the requirement to provide separated waste streams for these recyclables is removed. This is permissible to the extent of comingling accepted by the waste collection service. For example, if glass and plastic are collected as comingled, then paper and cardboard is still required to have a separated waste stream. 	 This OWMP outlines provision for the management and collection of the following waste streams: general waste; paper and cardboard; soft plastics; comingled recycling (incl. glass); Container Deposit Scheme (Return & Earn); and food / organics; Separate bins will be provided for each waste stream stored in a central waste storage area and bins will be clearly marked. Return & Earn bins will be securely stored to deter potential trespassing and theft.



	8A PERFORMANCE PATHWAY					
Dedicated Waste Storage Area	Two dedicated and sufficiently sized areas for the storage and collection of the applicable waste streams shall be provided.	 Calculations for the waste storage area for the school have been carried out based on: school areas and number of students attending the school; collection method and materials handling requirements of each stream; collection frequency for each waste stream; and hygiene, cleanliness and aesthetic aspects to the benefit of the development. The waste generation estimates are summarised in Table 5. 				
 Access requirements for waste collection areas must adhere to best practices. These access arrangements must be as outlined within third-party Best Practice Guidelines. Best Practice Guidelines outline the following requirements: The access pathway for wheeling bins between a central waste storage point and 		Appendix A & B. Vehicle swept paths are shown in Appendix C. Further detail regarding vehicle access is described in the traffic management				

4.1 WASTE TYPES

The NSW EPA Waste Classification Guidelines (NSW EPA, 2014a) groups wastes that pose similar risks to the environment and human health, as defined in the Protection of the Environment Operations Act 1997. The primary waste streams expected to be generated and corresponding EPA classifications for the ongoing operation of the development are summarised in Table 2.

EPA Classification	Waste Stream	Waste Type	Bin Colour	Waste Management
General solid		Food Organics	Lime Green	Food waste bin
waste (putrescible)	Organics	Garden Organics	N/A	Composted on site or removed as required by greenskeeper/arborist
General solid	Recycling	Metals (steel, aluminium, stainless)		
waste (non-		Hard Plastics (recyclables)	Yellow	Comingled recycling bins
putrescible)		Glass (bottles, containers, jars)		

Table 2 - Potential Waste Types and Classifications & AS 4123.7



EPA Classification	Waste Stream	Waste Type	Bin Colour	Waste Management
		Soft Plastic (plastic bags, bread bags, bubble wrap, plastic wrappers, etc.)	Any Colour	Plastic recycling bins
		Return & Earn Plastic Bottles (ONLY containers with the 10c refund label)	White	Container Deposit Scheme
		Paper (excluding paper towels, toilet paper & tissues) Cardboard	Blue	Paper & Cardboard recycling bins
		(excluding waxed cardboard) Non-recyclable Plastics		
	General	(Dirty/contaminated plastic)	Red	General waste bins
		General refuse		
	Other	Chemical liquid & solid waste	N/A	Science department to manage storage, collection and Material Safety Data Sheets (MSDS)
		Nespresso pods and capsules		Collected by Nespresso
Potentially hazardous waste		Sanitary waste (including feminine hygiene products, nappy waste)		
		Lead-acid or nickel-cadmium batteries		Collected by an appropriate contractor or sub-contractor as defined in the buy.NSW Contract 9698 agreement
		secure destruction (of sensitive documents)		
		Used printer cartridges		
		e-waste		

Designers must refer to EFSG - AS 4123.7 for colours, markings, and designation requirements for further guidance on bin colour, waste stream and waste type.



4.2 WASTE HIERARCHY



Figure 3 - Order of the Waste Hierarchy

The EFSG requires new and refurbished schools to identify opportunities for reuse and recycling in the operation of the facilities. Table 3indicates waste management practices that should be adopted in accordance with the *Waste Avoidance and Resource Recovery Act* 2001 (NSW EPA, 2014). Table 3- Implementing the Waste Hierarchy

Implementing the Waste Hierarchy

Avoid / Reduce
Reduce general waste at the source, determine changes in returnable delivery systems including packaging and purchasing.
Require suppliers to use stackable/returnable/reusable boxes instead of disposable cardboard boxes.
Reduce consumption of resources that have the potential to become waste through strategies such as green purchasing - purchasing items with reusable, recyclable, have no packaging or are biodegradable.
Examining all processes to determine where wastes are produced and to devise measures for waste prevention or reduction.
Devising ways of reducing waste with students so they too can share in the savings (i.e. rewards for students who reduce waste).
Partnering with others to assist with waste minimisation.
Keeping track of changes and improvement.
Reuse
Set up a reuse area for excess materials and promote the contribution and reuse of excess food.
Donate old (useable) computer/electrical equipment, furniture and fittings to staff, charities, or sell at auction.
Implement the Enviro Bank program for bottles and cans.
Reusing drums, cartridges and containers where possible.
Selling or donating usable waste materials to other organisations.

Recycle

Introduce recycling systems for major waste streams generated onsite including:

• Paper and cardboard;



Implementing the Waste Hierarchy

- Food / Organics;
- Soft Plastics;
- Bottles and cans; and
- Packaging and plastics.

Modify or refresh signage on recycling bins or in recycling areas to promote correct recycling practice.

Provide regular information and education to staff on appropriate usage and recycling bins.

Investigating alternative uses for organic waste that cannot be reduced or reused (i.e. composting, bio-gas from waste, digester, etc.).

Provision for a bin station at a central location in school with the option of source separation and clear waste signage to ensure source separation.

Explore opportunities for recycling waste types not included in the mandatory stream separation (i.e. batteries, coffee cups, e-waste, etc.)

Waste Disposal

Students, staff and cleaners dispose of waste in accordance with the Waste Management Policy.

Monitoring and assessment

Request waste contractor to provide monthly data and reporting on recycled and materials sent to landfill.

5 WASTE ESTIMATES

5.1 ESTIMATE OF QUANTITIES

As there is no reference in Queanbeyan-Palerang Regional Councils Googong DCP 2012 for waste strategies for schools, a desktop assessment of waste generated from the following similarly structured schools with a variety of student numbers to provide indicative waste volumes, was conducted.

School	# Students	General	Recyclable
Parramatta Public School	600	6000	2400
Pendle Hill High School	450	4500	Not Determined
Mainsbridge School	130	1980	1920
Erskine Park High School	1011	6000	1500

Table 4 - Weekly waste generation (Litres/week) across different schools

Erskine Park High School

In addition, an in-depth review of waste material composition was estimated based on the results of the Erskine Park High School Waste Audit 2019 conducted by APC Waste Consultants in collaboration with the Department of Education. The waste assessed through this audit was considered to be representative of waste that will be generated at the new high school in Bungendore and formed the basis for the waste generation estimates.



5.2 ESTIMATE OF QUANTITIES

To derive indicative quantities of waste, the following assumptions have been applied:

- The occupancy rate = 5 days per week (with students present during the NSW DoE designated active term dates);
- Number of students proposed = 450;
- Reference was made to the waste generated from schools listed in Table 4; and
- Weekly collection has been assumed; however the final frequency of waste collection will be made once final waste contractor agreements are in place.

Material Type	Weekly Vol. (L)	Bin Size (L)	# Bins	Bin Area (sqm)
Paper Cardboard	668	1100	1	1.7
Comingled	748	1100	1	1.7
Soft Plastic	721	1100	1	1.7
Organics	134	240	1	0.43
Return & Earn	80	240	1	0.43
General	945	1100	1	1.7
Circulation Space			10	
Total Area Required			18.19	

Table 5 - Waste Generation Estimates

5.3 STORAGE AREA SIZE ESTIMATES

Areas for storage and collection of the applicable waste streams will be provided and marked out on a concrete waste pad. The waste storage area will be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle.

Table 6 - Waste Pad Storage Area - Estimated Requirements

Minimum suggested waste pad storage size - including circulation space ~18 m²

The size of the planned waste storage area allocated for waste is 25m², as shown in Appendix A.

5.4 WASTE STORAGE AREA

The nominated waste storage area is to be located to the north of the carpark closest to Building C as shown in Appendix A. The bins will be stored in an enclosure, suitably screened from public view using materials such as walls, fencing, natural shrubs or a hedge row.

5.5 WASTE FACILITIES MAINTENANCE

Responsibility for cleaning of waste storage area and service compartments will be designated to the cleaning staff. The basic requirements for waste storage area are as follows:



- To be of adequate size;
- Integrated with building design and site landscaping;
- Suitably screened from public areas;
- Area to be level, with appropriate access for collection;
- Assurance that OH&S requirements for waste contractors are met;
- Access to waste enclosure to be safe, convenient to all users and to meet WorkCover NSW Occupational Health and Safety guidelines;
- Waste enclosure to conceal bins from view from the street; and
- Bins to be covered against birds, vermin and vandals.

6 WASTE MANAGEMENT

6.1 WASTE STORAGE SYSTEMS

It is anticipated that a combination of mobile garbage bins (MGBs) suitable to use for waste streams and separation will be utilised within the school as shown in Appendix B.

Small quantities of hazardous wastes may be generated (e.g. light bulbs, e-waste, batteries, oil, chemicals or paint). Separate containers for the safe storage of these wastes in the school will be provided where applicable in the waste storage area or another applicable storage area within the school. These materials will be collected by an appropriate contractor or sub-contractor as defined in the buy NSW Contract 9698 agreement.

6.2 WASTE MOVEMENT

It is anticipated that staff, students etc will dispose of waste directly into various streams (general, paper/cardboard, comingled recycling, soft plastics, container deposit scheme and food/organics) located in the offices, canteen, classrooms and open space playground prior to collection by the cleaners. Each waste stream will have small labelled and separate waste bins. Waste from these small bins will be then transported by cleaning contractors via the nominated egress corridors/pathways to the waste storage area where the waste material will be combined into larger bins ready for collection by the waste contractor.

6.3 WASTE COLLECTION POINT

The nominated Waste Collection Point (WCP) is adjacent to the Waste Storage Area (WSA) as shown in A. The appointed waste contractors will wheel the MGBs for each waste stream from the WSA to the WCP for collection and then wheel the MGBs back to the WSA at nominated times in accordance with the relevant waste contract. The collection area is sufficiently sized in order to accommodate waste contractor vehicles in accordance with the specifications in the *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities (EPA 2012).* The nominated WCP is within the boundary of the site and not within a public place.



6.4 VEHICLE MOVEMENTS

Medium Rigid Vehicles (MRVs) will collect the bins from the WCP on designated collection days. Swept paths and access pathways are shown in Appendix C. This will be done in such a manner as to minimise risk of damage to the roadway, footpath or services under the ground. Waste collection vehicles will not obstruct access to adjacent premises, roadways, the footpath or the primary pedestrian entrances to the school. In addition, waste collection will be carried out with due care for public safety including other road users, cyclists and pedestrians.

The WCP must be located such that the following vehicles can gain access:

- Medium Rigid Vehicle (MRV) Rear Loading Vehicle (12.5m long x 2.8m wide x 3.7m high in operation);
- Medium Rigid Vehicle (MRV) Front Loading Vehicle (12.5m long x 2.8m wide x 5.5m high in operation);

Other points to note include:

- General waste and comingled waste are collected by separate trucks at separate times/days out of school operational hours;
- Copies of the swept path diagrams are included in Appendix C;
- Concrete slab able to support the weight of a loaded truck and bins/skips; and
- The collection truck to enter and leave school premises in a forward direction.

6.5 COLLECTION HOURS

The waste collection truck will schedule collection out of school hours where possible to reduce any risk from the truck and bin movements to the school children. As the waste pad is accessed via the staff carpark, ideal waste collection times will be between 6am and 7.30am.

6.6 CONTRACTORS

A contract with a licensed waste contractor for the collection and removal of all waste to a licensed facility, will be arranged and concluded prior to commencement of waste removal. The contract will also include specific provisions for the times and manor of collections and the verification of recycling and/or disposal of all the facility's aforementioned waste streams and potential intermittent streams including but not exclusively: batteries, electronics, light bulbs, smoke detectors and any other fixtures or fittings that are generated as recyclable waste.

Upon engagement, a precondition is written evidence of a valid and current contract with a licensed collector for waste and recycling collection will be provided to the client of the school. The contract will, as stated above, include specific details on the method, timing and location of both the licensed recycling facilities used and/or licensed landfill(s) used for the disposal of non-recyclable waste.

Waste management service contract



Schools must use Contract 9698 in buy NSW website. This contract is mandatory and covers waste management services (bins, collection, transport, processing, treatment and disposal). Waste streams include general waste, organic, grease trap, recycling, secure destruction and clinical.

6.7 SEGREGATING WASTE

Waste will be segregated into separate streams (general, paper/cardboard, comingled recycling, soft plastics, container deposit scheme and food/organics) at the point of generation. Effective segregation is best achieved through:

- Education and training to all staff, contractors, visitors and students who generate waste, such as the waste wise schools' program;
- Ensuring identifiable colour coding and labelling of bins for each waste stream is implemented and maintained;
- Ordering and provision of suitable containers at appropriate locations;
- Incorporation of quick and efficient waste disposal methods into staff areas; and
- Ensuring all waste can be easily, safely and correctly segregated at the point of generation, for instance including appropriate bins in food preparation and administrative areas.

7 ONGOING MANAGEMENT

This OWMP forms the basis of operational waste management on site for the school. It is a living document which will be reviewed and revised to provide increased accuracy of waste generation estimates and to ensure appropriate onsite waste management in accordance with current and future waste management regulations. Compliance by the administrative manager, staff, cleaning contractors and waste collection contractor is essential to ensure the efficiency of the system. As such, all stakeholder engaging with the OWMP will need to maintain awareness of any new relevant guidelines and regulations that come into effect during the operational phase of the development.

7.1 SIGNAGE

Signage will be provided in all waste disposal, storage and collection areas demonstrating how to use the waste management system, including what materials are acceptable in each bin. All waste streams will be stored in clearly labelled; colour coded bins as appropriate to ensure that waste streams are not inadvertently mixed. Signage will be prepared and located on site in accordance with the Australian Standard (AS 1319) for safety signs, and the NSW EPA and Australian Standard for recycling signage. Examples of signage are shown in APPENDIX D.

The provision of space must include source separation, including bin stations and appropriate signage of waste and receptacles for multiple waste streams. Designers must refer to AS 4123.7 Mobile waste containers - Colours, markings, and designation requirements for further guidance on bin colour, waste stream and waste type.



Table 7 - AS 4123.7 Waste Storage Requirements

Bin Colour	Waste Stream	Waste type
Lime Green	Organics	Food Organics and Garden Organics
Yellow	Recycling	Comingled Containers
Blue	Recycling	Paper and Cardboard
White	Recycling	Container Deposit Scheme
Any colour	Recycling	Soft Plastic
Red	General	General Waste

7.2 EDUCATION & TRAINING

The school will aim to build a strong culture of waste reduction and recycling through regular waste management updates at assemblies, student gatherings, Parents and Citizens (P&C) meetings, staff inductions and meetings, ideally within an effective framework such as the waste wise schools' program.

7.3 ROLES & RESPONSIBILITIES

It is expected that all personnel will commit to the OWMP and be responsible for their own actions in adhering to the waste management objectives.

Table 8 - Roles and Responsibilities

Responsibility	Activity	Monitoring
Administrative Manager	 Ensuring staff (and students) are inducted into the OWMP and other applicable management plans. Responsible for undertaking procurement of operational materials in accordance with the waste management hierarchy. Segregation of waste streams where required to ensure appropriate use, treatment and/or disposal. Compliance with applicable environmental legislation and project conditions. Ensure environmental management plan(s) across the site are adhered to and accurate to site conditions. Undertake inspections to ensure compliance. Maintenance of waste-related signage, colour coding and MGBs. Security of waste storage pad area during day-to-day business. Ensure no waste is placed on the public way. Promoting and enabling compliance with the OWMP by other stakeholders (cleaners, staff, students etc.) through delivery of positive waste management culture at the school. 	Monitor contractors and cleaners for compliance to the OWMP.
Cleaners Removing Material	 Responsible for acting in accordance with the OWMP. Transfer of waste within the school. 	Ensure there is no contamination in comingled bins.



Responsibility	Activity	Monitoring
	 Transfer of MGBs to the nominated waste storage pad and return of MGBs to waste school areas. Clean areas around waste storage pad. Ensure no waste is placed on the public way. 	
Staff	 Adherence to the OWMP. Placement of waste/recycling within correct bins. Notify manager/cleaning contractor when bins are overfull and require transport to the MGBs. Informing the Administrative Manager of any waste management incidences. Reinforcing positive waste management culture as defined by administrative manager amongst colleagues and students. 	Ensure there is no contamination in comingled bins.
Students	 Responsible use of waste facilities and appropriate disposal of waste. Encourage BYO for the following items: water bottles, containers, straws, reusable utensil sets, washable hand towel, carry bag and coffee cups. Engaging with positive waste management culture as delivered by teachers. 	Educate students and inform about the School's waste management initiatives and that the goals and targets are clearly communicated.
Waste Contractors	 Acknowledge and comply with waste targets. Use reasonable endeavours to assist reaching the waste targets. Provide feedback on actual volumes of waste and recycling collected to enable waste volume evaluation by Administrative Manager. 	Quantify the amount and types of waste. Monitor, report and address contamination through regular monitoring/bin inspections.

8 REVIEW PROCESS

School Management will undertake regular reviews of the Operational Waste Management Plan including the following indices:

Waste Management Contract	
On Site Signage	
Waste Contractor Performance	
Data on Recycling Rates	
Waste Contractor Licences	
On Site Waste and Recycling Systems	



9 LIMITATIONS

This report documents an Operational Waste Management Plan (OWMP) as part of the SSDA with the following limitations:

- Estimates and details contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information;
- The figures presented in the report are an estimate only the actual amount of waste generated will be dependent on the occupancy rate and waste generation intensity as well as the approach to educating visitors, staff and students regarding waste management operations and responsibilities;
- The School Administrative Manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- This OWMP has been prepared with reference to applicable legislation, regulations and guidelines in effect at the time of writing and no guarantee can be made that the recommendations provided will remain compliant with future mandatory requirements during the operational lifespan of the development;
- The report has been prepared with all due care, however, no assurance or representation is made that the OWMP reflects the actual outcome and EcCell will not be liable for plans or outcomes that are not suitable for the purpose of the project, whether as a result of incorrect or unsuitable information or otherwise; and
- EcCell offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated.



APPENDIX A – PROPOSED WASTE STORAGE AREA AND WASTE COLLECTION POINT



EcCell Environmental Pty Ltd 2021

Reference: OWMP_BHS

Revision #: V1





General Waste

Red

Recycling

General



APPENDIX C – WASTE COLLECTION VEHICLE SWEPT PATHS





APPENDIX D – EXAMPLES OF APPROPRIATE WASTE SIGNAGE





Mixed Recycling

