

*environmental management
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OPERATIONAL WASTE MANAGEMENT PLAN (OWMP)

NEW HIGH SCHOOL IN BUNGENDORE

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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	Issue	Simon Lunn	Jo Drummond
Version 1.1	6/08/2021	Updated section 6.4	Simon Lunn	Jo Drummond
Version 1.2	7/09/2021	Updated preamble & appendices	Simon Lunn	Jo Drummond
Version 1.3	14/07/2022	Updated preamble & appendices	Simon Lunn	Jo Drummond

1 INTRODUCTION

1.1 INTRODUCTION

EcCell Environmental prepared an Operational Waste Management Plan (OWMP) that forms part of the Environmental Impact Statement for SSD No 14394209 for a new high school at Bungendore. The Environmental Impact Statement was exhibited by the NSW Department of Planning from Monday 20 September 2021 to Monday 18 October 2021. During the exhibition submissions were received and following exhibition the Department of Planning and Environment issued two requests for information dated 16 November 2021 and 24 December 2021.

This report accompanies an Amendment Report for the project and forms an update to the previously issued OWMP.

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

Proposal Amendments:

- The amended design no longer includes facilities for Queanbeyan-Palerang Regional Council (Council) such as the previously proposed community health centre, community library and council shop front. The facilities are still to be provided by Council, however, through a separate planning process and on a separate site.
- Administration and staff facilities have been relocated from Block A into Block C (existing council building) and the visual arts and TAS functions have been relocated into Block A.
- The school library has been relocated from Block D to a standalone block, Block E, which is located to east of the Majara Street alignment and centred on the school common.
- Block D has been replanned to address the removal of Council facilities, the relocation of the school library and to sit to the east of the Majara Street alignment. The floor level of Block D has also been lowered to suit the revised building footprint.
- Block B has been relocated to the west, off the Majara Street alignment.
- The games courts and cricket batting nets have been relocated within the school boundary.
- The bulk and scale of buildings facing public roads (Blocks A and B) have been reduced.

- The façade materials of the proposed buildings have been revised to be more sympathetic to the existing village character.
- The primary outdoor learning areas, including the 'covered' outdoor learning areas have been relocated and redesigned to be integrated within the landscape design.
- Minor planning changes to Block B which include relocation of the outdoor learning spaces, student amenities and building services to provide a new covered walk through from the school plaza to Mick Sherd Oval.
- The covered walkway connection between Block B and Block D has been redesigned to arc around the eastern side of the school common and provide a covered connection to the relocated school library, Block E.
- The school security fence between Blocks B and D has been redesigned to arc around the western perimeter of the school common. The school security fence to the northern and southern boundaries has been rationalised and face brickwork piers have been introduced to define the school entries.
- The waste vehicle turning circle has been removed from the proposal. The waste collection area has been relocated to the southern end of the existing carpark and a waste vehicle turning head has been added. A new turning bay is provided for assisted transport vehicles to the northern end of the car park.
- The onsite detention tank has shifted to the west.
- The electronic school sign has been replaced with a changeable, static 'notice board' sign. The sign has been relocated further back from Majara Street, behind the school security fence.
- The Scout storage shed has been relocated from the agricultural plot to within the Scout site. The Scout storage shed will be subject to a separate planning pathway and does not form part of this application. The school agricultural support building, Block F, has been repositioned and the landscape paths and driveways have been updated to suit the change.
- An addition 58 car parking spaces are proposed along Turallo Terrace providing a total of 98 spaces (compared to the original 35). An additional 3 drop off/ pickup spaces are proposed on Turallo Terrace providing a total of 6 spaces (compared with the original 3).
- The proposed delineation works to Mick Sherd Oval and the War Memorial have been removed from the proposal.
- The redesign of pedestrian crossings on Gibraltar Street and Turallo Terrace from 'School Crossings' to 'Wombat Crossings'.
- A footpath is proposed to the northern side of Turallo Terrace connecting the proposed parking with the existing path adjacent to Turallo Creek

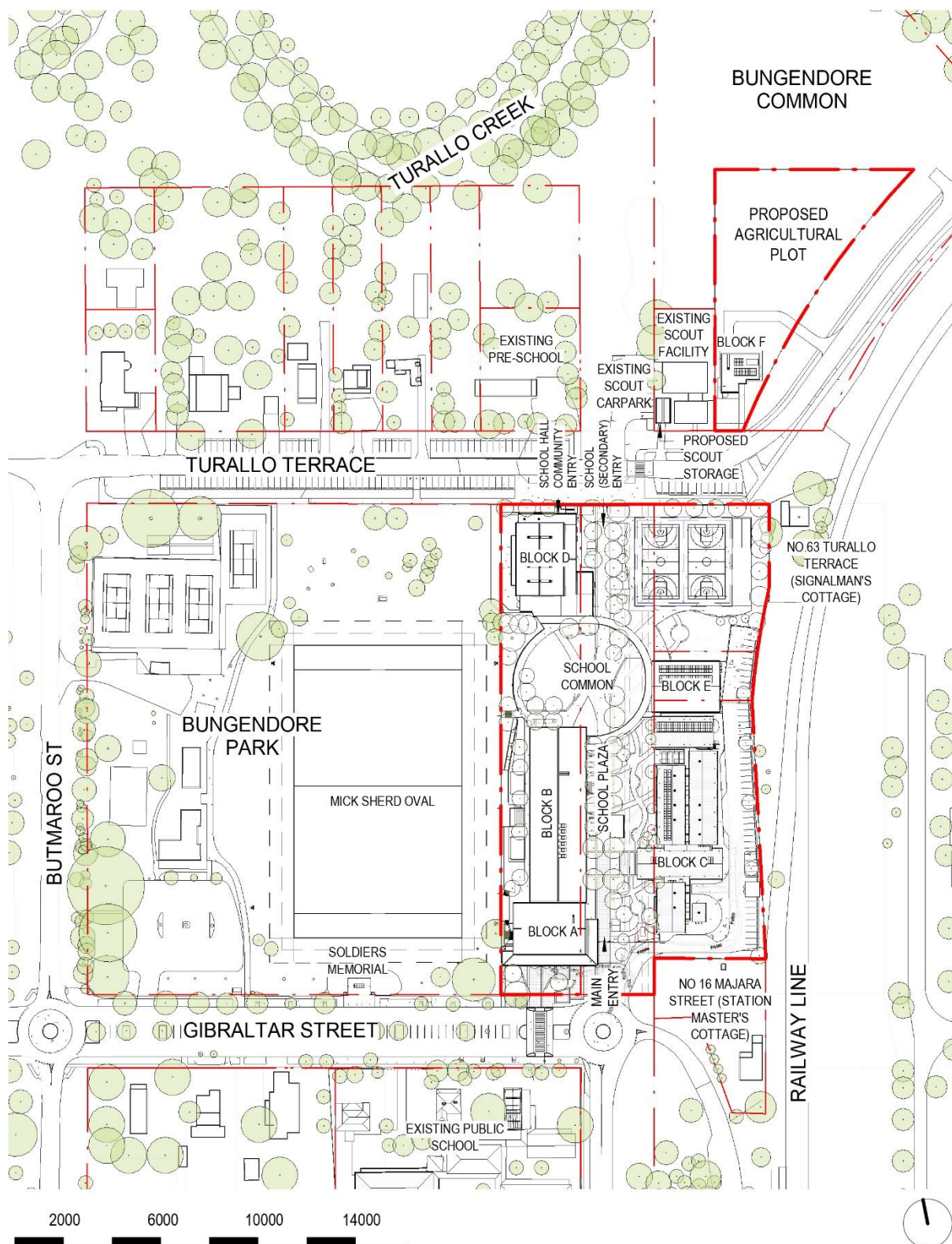


Figure 1 Proposed site plan

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 bounded by Bungendore Park, 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 legally described as per the existing Lots and DPs in Table 1 below. The school site comprises land which has recently been transferred to the ownership of the Department of Education, being Lots 12-14 of DP1139067, Lot 3 of DP830878, part of Lot 701 of DP1027107, the part of lot 701 of DP96240, and part of the Majara Street Road Reserve. The proposed Lots and DPs are detailed within Table 1 below and are not yet registered at the time of writing of this Amendment Report.

The site is approximately 25,350m² in area and consists of a relatively flat topography. It contains existing Council buildings. 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	Existing Lot and DP	Proposed Lot and DP
6-14 Butmaroo Street	Part Lot 701 DP1027107	Lot 1 DP1276282
2 Majara Street		
4-6 Majara Street	Lot 14 DP1139067	
10 Majara Street	Lot 3 DP830878	Lot 3 DP830878
Butmaroo Street	Part Lot 701 DP96240	Lot 1 DP 1276285
Portion of Majara Street (between Turallo Terrace and Gibraltar Street)	N/A	Lot 1 DP 1276279



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

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:
 - safely and easily accessible to occupants and service providers; and
 - 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:

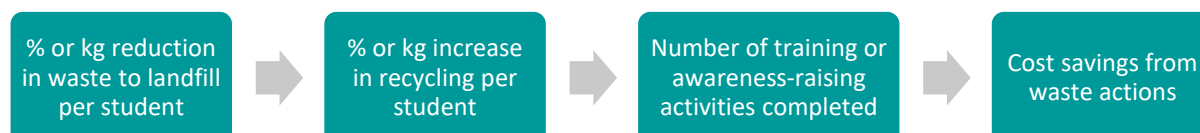
- NSW Environment Protection Authority (EPA) Waste Classification Guidelines 2014;
- NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012;
- NSW EPA's Waste Avoidance and Resource Recovery (WARR) Strategy 2014-21 with expected future guidelines 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

8A PERFORMANCE PATHWAY		
Separation of waste streams	<p>The following waste streams must be provided with separate bins or containers:</p> <ul style="list-style-type: none"> • general waste; • paper and cardboard; • glass; • plastic; and • at least one other waste stream. <p>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.</p> <p>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.</p>	<p>This OWMP outlines provision for the management and collection of the following waste streams:</p> <ul style="list-style-type: none"> • general waste; • paper and cardboard; • soft plastics; • comingled recycling (incl. glass); • Container Deposit Scheme (Return & Earn); and • food / organics; <p>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.</p>

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.	<p>Calculations for the waste storage area for the school have been carried out based on:</p> <ul style="list-style-type: none"> • 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. <p>The waste generation estimates are summarised in Table 5.</p>
Access to Waste Storage Area	<p>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:</p> <ul style="list-style-type: none"> • The access pathway for wheeling bins between a central waste storage point and the collection point must be level and free of steps or kerbs. • The maximum manual handling distance between the storage point and the collection point for mobile garbage bins is 20 meters. 	<p>The waste & recycling storage enclosure is located separate from the school car park, shown in Appendix A & B. Vehicle swept paths are shown in Appendix C. Further detail regarding vehicle access is described in the traffic management plan.</p> <p>The access pathway for transporting waste from the waste & recycling storage enclosure to the collection point is generally level and free of steps.</p>

4 WASTE GENERATION

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.

Table 2 - Potential Waste Types and Classifications & AS 4123.7

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

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)	Blue	Paper & Cardboard recycling bins
		Cardboard (excluding waxed cardboard)		
	General	Non-recyclable Plastics (Dirty/contaminated plastic)	Red	General waste bins
		General refuse		
Potentially hazardous waste	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
		Sanitary waste (including feminine hygiene products, nappy waste)		Collected by an appropriate contractor or sub-contractor as defined in the buy.NSW Contract 9698 agreement
		Lead-acid or nickel-cadmium batteries		
		secure destruction (of sensitive documents)		
		Used printer cartridges		
		e-waste		

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

4.2 WASTE HIERARCHY

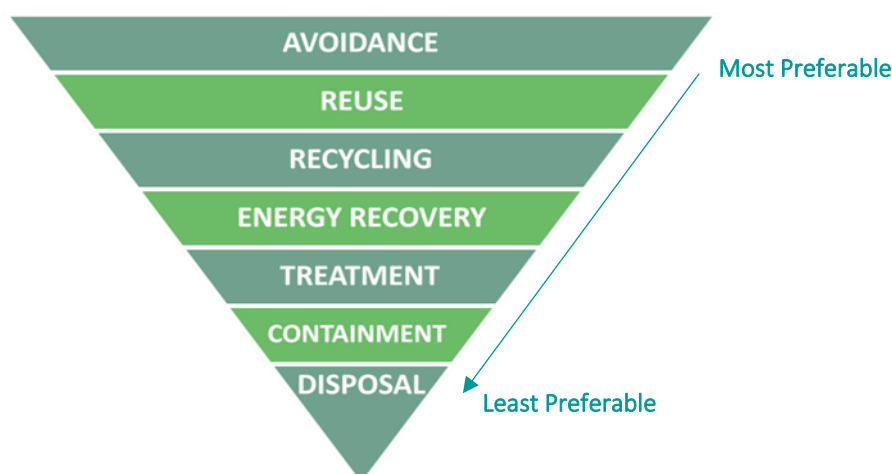


Figure 3 - Order of the Waste Hierarchy

The EFSG requires new and refurbished schools to identify opportunities for reuse and recycling in the operation of the facilities. Table 3 indicates 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: <ul style="list-style-type: none"> Paper and cardboard;

Implementing the Waste Hierarchy
<ul style="list-style-type: none"> • 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.

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

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

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.

Table 5 - Waste Generation Estimates

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

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
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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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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:

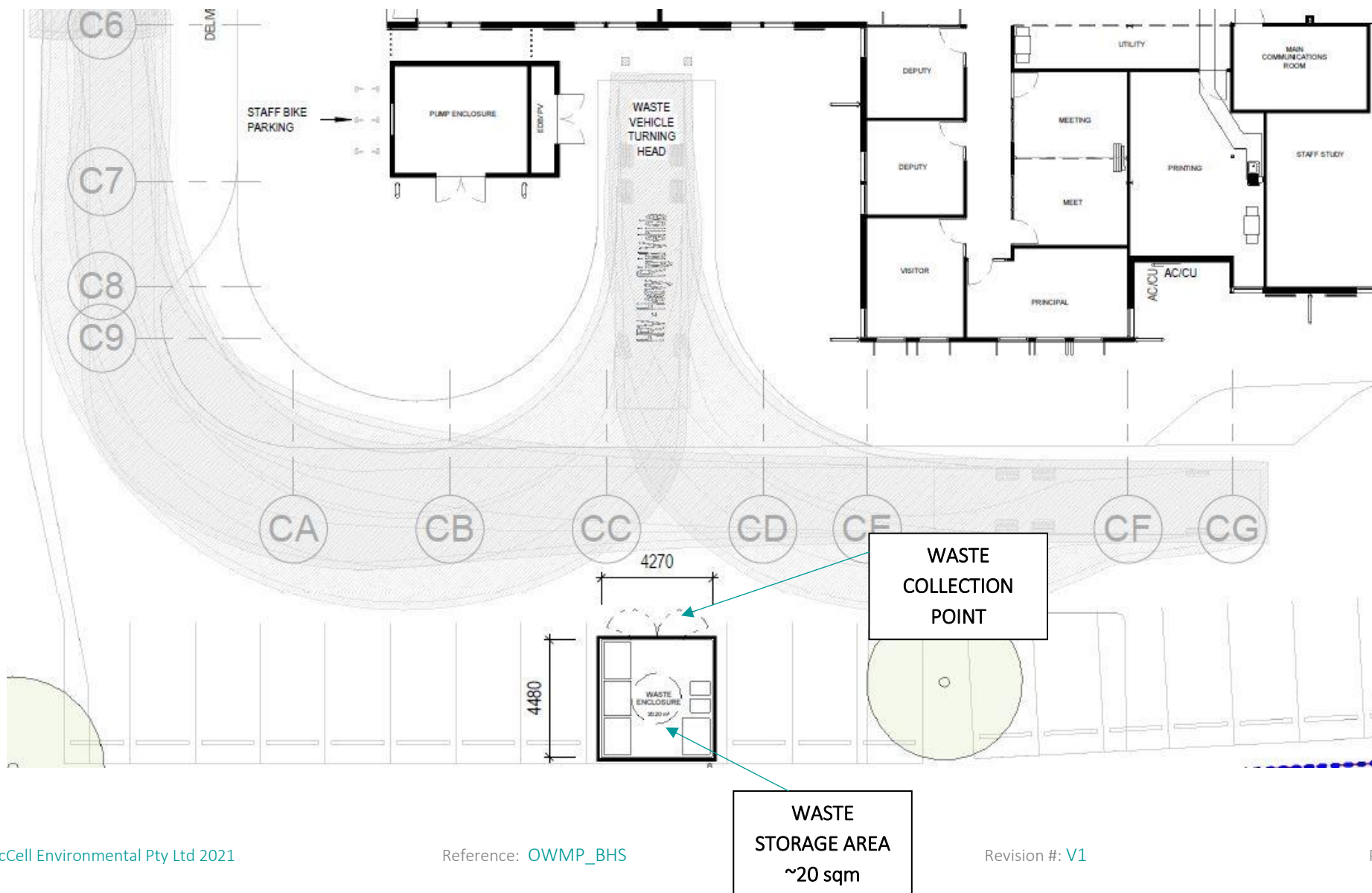
Waste Management Contract
On Site Signage
Waste Contractor Performance
Data on Recycling Rates
Waste Contractor Licences
On Site Waste and Recycling Systems

9 LIMITATIONS

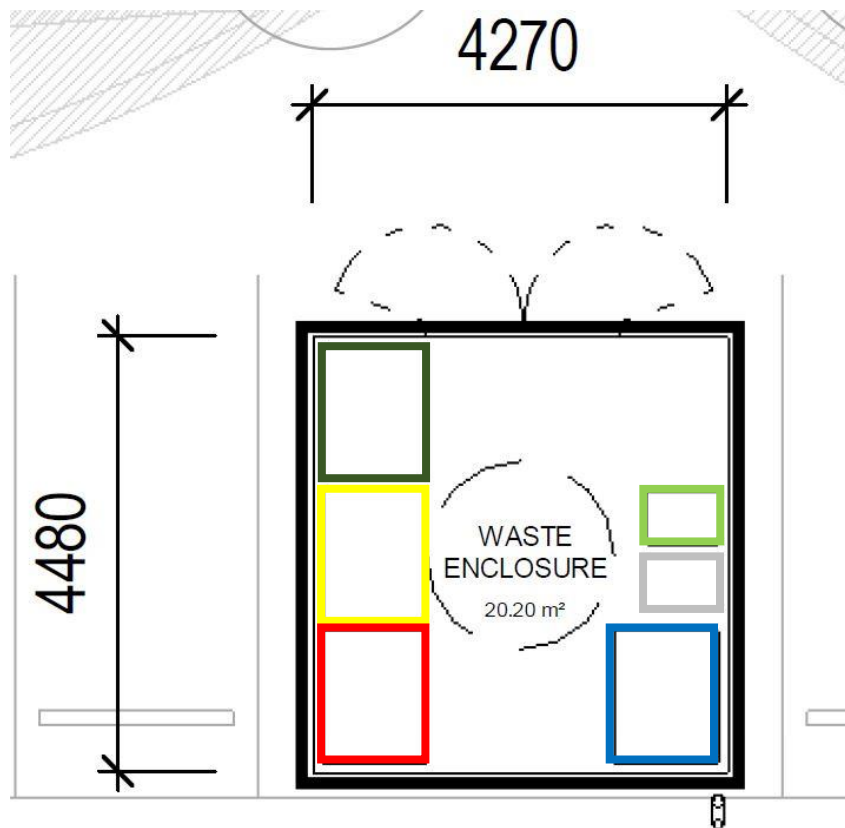
This report documents an Operational Waste Management Plan (OWMP) as part of the SSDA with the following limitations:

- 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



APPENDIX B – PROPOSED BIN LAYOUT



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



APPENDIX D – EXAMPLES OF APPROPRIATE WASTE SIGNAGE

