

Operational Waste Management Plan

Bungendore North Campus High School,
4-6 and 10 Majara Street, Bungendore NSW

Colliers International (SA) Pty Ltd on behalf of NSW Department of Education (DoE)
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This report was prepared in accordance with the scope of services set out in the contract between Geosyntec Consultants Pty Ltd (ABN 23 154 745 525) and the client.

Executive Summary

Geosyntec Consultants Pty Ltd (Geosyntec) was commissioned by Colliers International (SA) Pty Ltd (the Client) on behalf of the NSW Department of Education (DoE) (the Proponent) to prepare an Operational Waste Management Plan (OWMP) for the new Bungendore North Campus High School Project. The new Bungendore North Campus High School is located within 4-6 and 10 Majara Street, and part of Lot 1 DP 1276279 (Majara Street road reserve) and part of Lot 1 DP 1276282 in Bungendore NSW (the site). This OWMP is designed to support a Review of Environmental Factors (REF) for the operation of the new Bungendore North Campus High School (the activity).

The objective of this OWMP is to provide a framework to assist NSW DoE in providing effective management of solid and liquid waste during school operation. This OWMP considers the estimated waste volumes (based on student numbers), waste collection and removal strategies, waste collection facilities and waste minimisation initiatives to develop an effective waste management system.

The new Bungendore North Campus High School will involve use of the former Council administration building, new demountable classrooms, landscaping, outdoor play areas, shade structure and basketball court, on site staff parking which utilises the existing car park and access from Majara Street, and public domain upgrades to part Lot 1 DP 1276279 (Majara Street Road reserve) and part lot 1 DP 1276282 to enable kiss and drop from Majara Street and pedestrian connectivity to surrounding areas. The proposed facilities will supplement the existing temporary high school facilities located within the Bungendore Primary School site.

This OWMP outlines measures to achieve the following:

- Avoid the generation of unnecessary waste
- Minimise the amount of waste to be collected and sent to landfill
- Promote recycling, reuse and recover of waste generated

Waste bins at the school will be color-coded and categorized into the following types: general waste, comingled recyclables, paper and cardboard, and organic waste. This system is designed to promote sustainable waste management practices. The categorized bins will be placed throughout the school premises, particularly in high-traffic areas to encourage proper disposal. Waste collected in these bins will be transported to designated collection sites for pickup by a waste collection contractor at scheduled intervals.

The OWMP shall comply with relevant legislation and guidelines. These include the Protection of the Environment Operations Act 1997, Waste Avoidance and Resource Recovery Act 2001, and the NSW Waste and Sustainable Materials Strategy 2041. Waste management procedures will adhere to the EPA's Waste Classification Guidelines and other applicable standards. Regular reviews and updates of the OWMP will ensure it remains current and effective during the school operation. A waste management register will be maintained to record all waste and recyclables, ensuring transparency and accountability.

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1 Introduction

This Operational Waste Management Plan (OWMP) has been prepared by Geosyntec Consultants Pty Ltd (Geosyntec) for Colliers International (SA) Pty Ltd (the Client) on behalf of the NSW Department of Education (DoE) (the Proponent), for the new Bungendore North Campus High School Project. The new Bungendore North Campus High School is located within 4-6 and 10 Majara Street, part of Lot 1 DP 1276279 (Majara Street road reserve) and part of Lot 1 DP 1276282 in Bungendore NSW (the site). The site location and the proposed site layout following redevelopment of the existing Bungendore Primary School administration building and carpark are presented in Figure 1 and 2, Appendix A.

The site is legally described as Lot 13 and 14 in Deposited Plan (DP) 1139067, Lot 3 in DP830878, as well as part of Lot 1 in DP 1276279 and part Lot 1 in DP 1276282. The site has an area of approximately 1.06 hectares (ha). The site is zoned SP2 Infrastructure for Lot 13 and 14 in DP 1139067 and Lot 3 in DP830878, R2 Low Density Residential for part of Lot 1 in DP 1276279 and RE1 Public Recreation for part of Lot 1 in DP 1276282.

1.1 Background

This OWMP has been prepared to support a Review of Environmental Factors (REF) for the NSW DoE for the operation of the new Bungendore North Campus High School (the activity).

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as “development permitted without consent” on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI) as well as the Addendum Division 5.1 guidelines for schools and Addendum October 2024 (Consideration of environmental factors for health services facilities and schools).

The purpose of this report is described in Section 1.2.

The proposed activity is for the construction and operation of the new Bungendore North Campus High School. The high school will accommodate the operational needs of the high school on a temporary basis (together with the existing high school located within the grounds of Bungendore Public School) as students enrolments continue to grow. These facilities will be utilised until such time the permanent high school at Birchfield Drive is established. The new temporary high school is intended to accommodate students from the 2026 academic year or until such time the permanent high school facilities are established at Birchfield Drive in Bungendore and will involve utilising the former Council administration building and car park located at 10 Majara Street, proposing demountable buildings, and upgrading waste collection and pedestrian access including public domain upgrades in part Lot 1 DP 1276279 and part Lot 1 DP 1276282. Specifically, the project involves the following:

- Use of the former Council administration building as part of the new Bungendore North Campus High School,
- New demountable classrooms,
- Landscaping, outdoor play areas, shade structures and basketball court,
- On site staff parking which utilises the existing car park and access from Majara Street, and

- Public domain upgrades to part Lot 1 DP 1276279 (Majara Street Road reserve) and part lot 1 DP 1276282 to enable kiss and drop from Majara Street and pedestrian connectivity to surrounding areas.

The new North Campus facilities proposed will supplement the existing high school facilities located within the Bungendore Primary School site. Figure 2, Appendix A shows the existing site plan.

Refer to the Review of Environmental Factors (REF) for the detailed scope of works and operational details

1.2 Objectives

The main objective of this OWMP is to provide a framework to assist NSW DoE in providing effective management of solid and liquid waste during school operation, and details management practices for the reuse, recycling and lawful disposal of waste generated.

The OWMP addresses the following specific objectives:

- Specify the type and amount of waste to be produced during school's operation, according to student and staff numbers.
- Outline the procedures for handling, storage and disposal of the waste streams generated on site.
- Ensure waste management facilities are:
 - safely and readily accessible for both occupants and service providers
 - adequately sized for storage of the expected waste.
 - have a suitable Bin Storage Area/Waste Storage Area including appropriately-sized bins
 - allowing efficient collection of bins by appropriate waste collection vehicles
- Advise suitable strategies for waste storage, source separation, collection, removal, along with the necessary collection facilities to minimise waste and to enhance recovery of recyclables, and to develop an effective waste management system
- Outline suitable on-site storage solutions and removal services to discourage illegal dumping and avoid the accumulation of large amounts of waste
- Create an environment by which to minimise adverse impacts to health, environmental and safety related to handling and disposal of waste and recycled material
- Divert 80% of the generated waste from landfills, in accordance with the NSW Waste and Sustainable Materials Strategy 2021-2027. Additionally, aim for an 85% diversion rate, preparing for potential future mandatory targets as outlined in the "Cleaning Up Our Act: The Future for Waste and Resource Recovery in NSW" Issued Paper 2020

1.3 Review of OWMP

An important aspect of this OWMP is that it will be reviewed on a regular basis to confirm that it is up-to-date, and waste generated are identified and appropriate management strategies are implemented to maximise landfill diversion. Should there be a need to amend this OWMP, it will be revised in accordance with the review process detailed in Section 8.

1.4 Site Identification

Table 1.1: Site Details

Item	Site Details
Street Address:	4-6 and 10 Majara Street, and part of Lot 1 DP 1276279 (Majara Street road reserve) and part of lot 1 DP 1276282, Bungendore NSW 2621
Property Description:	Lot 13 and 14 in DP 1139067, Lot 3 in DP830878, and part of Lot 1 in DP 1276279 and part lot 1 DP 1276282.
Ownership:	The NSW Department of Education (DoE)
Geographical Coordinates:	Latitude: -35.254112 Longitude: 149.446341
Property Size:	Approximately 1.06 hectares
Local Government Area (LGA):	Queanbeyan-Palerang Regional Council (QPRC)
Current/Historical Use:	The site is currently occupied by QPRC Bungendore Customer Service Centre buildings for administration use (Lot 3 in DP830878). The northern portion of the Site is vacant land (Lot 13 and 14 in DP 1139067), and west portion of the site is roadway (part of Lot 1 in DP 1276279) and part of Bungendore Park (part of lot 1 DP 1276282). The site was historically vacant land bordering the Railway to the east with west portion being roadways. The site was constructed in the early 2000s.
Proposed Use:	Temporary public high school
Zoning	SP2 Infrastructure for Lot 13 and 14 in DP 1139067 and Lot 3 in DP830878, and R2 Low Density Residential for part of Lot 1 in DP 1276279 and RE1 Public Recreation for part of Lot 1 in DP 1276282 (LEP Land Use Zoning Diagram)

The new Bungendore North Campus High School is located within 4-6 and 10 Majara Street, and part of Lot 1 DP 1276279 (Majara Street road reserve) and part Lot 1 DP 1276282 in Bungendore NSW, 2621 (the site). The new Bungendore North Campus High School will utilise the former Council administration building and car park located at 10 Majara Street. Demountable buildings are proposed to be placed north of the existing building. Public domain upgrades will feature in part Lot 1 DP 1276279 and part Lot 1 DP 1276282.

The site is located between Mick Sherd Oval (to the west) and the rail corridor (to the east). The site is located approximately 170m north of the Bungendore Train Station and Bungendore Primary School. The Bungendore Primary School, located on the corner of Gibraltar Street and Majara Street currently accommodates Bungendore High School on a temporary basis. The site is zoned SP2 Infrastructure for Lot 13 and 14 in DP 1139067 and Lot 3 in DP830878, R2 Low Density Residential for part of Lot 1 in DP 1276279 and RE1 Public Recreation for part of Lot 1 in DP1276282. The adjoining land is zoned as SP2 Infrastructure (north and east to the Site, with rail infrastructure facility to the east and further south), RE1 Public Recreation (west to the Site), and R2 Low Density Residential (South to the Site).

2 Legislative Requirements and Guidelines

Applicable legislation and guidelines considered in the preparation of this OWMP are outlined in this section.

2.1 Legislation

Section 143 of the Protection of the Environment Operations (POEO) Act (1997) requires waste to be transported to a place that can lawfully accept it. It will be the responsibility of NSW DoE to ensure that the school is aware that there is a site OWMP, and clearly specify where all wastes are to be transported, the capacity of the nominated facilities to receive/manage the waste, and to confirm that waste management aspects (types, quantities and disposal pathways) are provided.

Legislation relevant to waste management includes the following:

- Contaminated Land Management Act 1997
- Environmentally Hazardous Chemicals Act 1985
- National Waste Policy 2018
- NSW Environmental Planning & Assessment Act 1979
- NSW Waste and Sustainable Materials Strategy 2041
- POEO Act 1997 (POEO Act)
- Protection of the Environment Operations (Waste) Regulation 2014
- Waste Avoidance and Resource Recovery Act 2001
- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2017

2.2 Guidelines and Standards

Guidelines and standards relevant to this OWMP include:

- Educational Facilities Standards & Guidelines (EFSG) NSW Updated Nov. 2020
- 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 2014-2021
- Relevant Resource Recovery Exemption and Orders as issued by EPA
- Storing and Handling Liquids, Environmental Protection: Participants Manual (NSW DECC, 2007)
- Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, 2014)
- Waste Reduction and Purchasing Policy 2011-2014 (WRAPP) (NSW Government)

2.3 Educational Facilities Standards and Guidelines (EFSG)

Educational Facilities Standards and Guidelines (EFSG) - section DG02 Ecologically Sustainable Development 2.7.2 Operational Waste requires new and refurbished schools to establish operational waste targets. The minimum recycling targets adopted for this school align with those outlined in the

EPA's NSW Waste and Sustainable Materials Strategy 2041 Stage 1: 2021–2027, released in June 2021 which includes:

- Increase recycling rates to 80% for municipal solid waste; and
- Reduce total waste generated by 10% per capita by 2030.

By setting realistic achievable goals, targets and performance, the OWMP is more likely to succeed. This approach will enable the school to effectively document and communicate its waste reduction and diversion accomplishments, aligning with the NSW Department of Education's waste reporting protocols. Relevant examples of key performance indicators are listed below:

- Percent (%) or kilogram (kg) reduction in waste to landfill per student
- Percent (%) or kilogram (kg) increase in recycling per student
- Number of training or awareness raising activities completed
- Cost savings from sustainable waste actions

3 Waste Generation

3.1 Waste Types

The NSW Environmental Protection Agency (EPA's) Waste Classification Guidelines (2014a) categorize wastes based on their comparable environmental and health risks, as outlined in the POEO Act 1997. Table 3.1 provides a summary of the anticipated primary waste streams and their corresponding EPA classifications for the ongoing operations of the development.

Table 3.1: 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
General solid waste (non-putrescible)	Recycling	Metals (steel, aluminium, stainless)	Yellow	Comingled recycling bins
		Hard Plastics (recyclables)		
		Glass (bottles, containers, jars)		
		Paper (excluding paper towels, toilet paper & tissues)		
		Cardboard (excluding waxed cardboard)	Blue	Paper & Cardboard recycling bins
Potentially hazardous waste	General	Non-recyclable Plastics (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 (MSD). Hazardous waste can be disposed via Council Scheduled Chemical Clean-out.
		Garden chemicals		To be managed and disposed of by the landscaping / gardening contractor
		Coffee pods and capsules		Brand-specific Australia Post satchel with used capsules and return to supplier via Australia Post
		Sanitary waste (including feminine hygiene products, nappy waste)		
		Lead-acid or nickel-cadmium batteries	N/A	Collected by an appropriate contractor or sub-contractor on an as required basis
		Secure destruction (of sensitive documents)		
		Used printer cartridges		
		E-waste		

For detailed guidance on bin colours, markings, and designation specifications, designers should consult the EFSG - Australian Standard AS 4123.7, which provides comprehensive instructions on waste stream and waste type identification.

3.2 General Principles

3.2.1 Overview

The 2018 National Waste Policy provides a framework for collective action by businesses, governments, communities and individuals. The following is the waste hierarchy, in order of most preferable to least preferable:



Image 3.1: Waste hierarchy (NSW EPA Waste Avoidance and Resource Recovery Strategy 2014-21).

The EFSG requires that new and refurbished schools to identify opportunities for reuse and recycling in the operation of the facilities. Sections 3.2.2 through 3.2.6 outline specific waste management strategies that should be adopted in compliance with the Waste Avoidance and Resource Recovery Act 2001, as required by the NSW EPA (2014).

3.2.2 Avoid and Reduce

Where possible, opportunities for waste avoidance and reduction shall be considered as follows:

- Reduce general waste at the source, consider opportunities for waste avoidance when purchasing resources from suppliers
- Require suppliers to use returnable or reusable boxes/items instead of disposable boxes/items
- Examining all processes to identify sources of waste and develop strategies for waste prevention or reduction.
- Implement green purchase strategy - purchase items with reusable/recyclable/biodegradable packages
- Consider opportunities for waste avoidance when establishing contracts

Paper is one of the main forms of waste generated by schools, representing potentially up to 25% of waste. Strategies to reduce this can include:

- Use of internet for research assignments.
- Making memo pads out of scrap paper
- View of information electronically instead of printing hard copies
- Reduce distributed hand-outs

Paper waste can be managed through:

- Provision of separate paper waste bins.
- Educating teachers and staff on the importance of recycling, and this should filter down to the pupils.
- Setting up a paper collection scheme for each classroom by making 'paper only' waste bins or boxes for the children and teachers to put used paper in.
- Involving pupils by allowing them to create posters and bright labels for the recycle bins.

Similar initiatives should also be encouraged for other materials such as plastics and metals.

3.2.3 Reuse

Where possible, opportunities to reuse materials at school, and in the home, shall be undertaken to ensure maximum utilisation of the resource:

- Establish a designated reuse area for excess materials and categorise them according to their potential reuse scenarios in the education programs
- Donate functional old computer and electrical equipment, furniture, and fixtures to charitable organizations
- Reuse drums, cartridges, containers, school supplies, folders and binders, where possible
- Collect unclaimed items at the end of the year to donate or reuse
- Use old magazines for art projects

3.2.4 Recycling

- Implement recycling systems for major waste streams generated during school operation:
 - Paper and cardboard
 - Food / Organics/ coffee pods (if applicable)
 - Bottles and cans
 - Packaging
- Provide adequate segregated waste bins in classrooms and waste segregation in the main refuse area
- Highlight signage on recycling bins and in recycling areas to promote recycling practice
- Educate staff and students on appropriate usage of recycling bins
- Appropriately recycle wastes not included in the mandatory stream separation (i.e. batteries, e-waste, paints, etc.)

- Explore alternative uses for organic waste that cannot be reduced or reused
- Recycle waste materials for craft projects
- Procure waste collection services in line with the school's Waste Management Policy

3.2.5 Waste Disposal

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

3.2.6 Monitoring and Assessment

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

4 Waste Estimates

4.1 Estimate of Waste Generation

Based on a desktop assessment of waste generated from similarly structured schools with a variety of student numbers, the waste generation estimated for the proposed new Bungendore North Campus High School is provided in Table 4.1. The waste generation estimation is based on proposed student numbers so that waste storage areas will be sufficient. The following assumptions are considered:

- Attendance for students and staff is 5 days per week during school terms
- Number of students proposed = assumed 110 for waste estimation purposes
- Size for Wheelie Garbage Bins (WGBs) is prescribed in Table 6.1

Frequency of waste collection is assumed as weekly; however, the frequency is subject to change to facilitate the actual waste production during the school operation or when required.

Table 4.4.1: Weekly Waste Generation Estimates for Bungendore North Campus High School

Material Type	Weekly Vol. (L)	Bin Size (L)	# Bins	Bin Area (m ²)
General Waste	300	240	2	1.2
Comingled	200	240	1	0.6
Paper and cardboard	180	240	1	0.6
Organics	60	120	1	0.4
			Circulation Area (m ²)	4
			Total Area Required (m²)	8

4.2 Storage and Collection Area

The waste storage area as well as the loading area for waste collection service is proposed to be located within the southwestern portion of the site, in Lot 1 DP 1276279 as identified in the draft architectural plans. The waste storage area is sealed with concrete and is sized appropriately to accommodate the bins or containers, for the various applicable waste streams, for at least one collection cycle. Transfer to a designated area such as the waste storage area is subject to agreement with the appointed collector for collection purposes.

4.3 Waste Facilities Maintenance

Regular inspections of the waste facilities and storage areas are essential to identify potential issues. This includes checking for proper functioning of bins, cleanliness of storage areas, and appropriate access for collection. It is also important to comply with safety standards and requirements such as WorkCover NSW Occupational Health and Safety Guidelines.

5 Waste Management

5.1 Waste Storage Systems

Wheelie garbage bins (WGBs) should be deployed within the school and a combination of WGBs suitable to use for waste streams and separation should be used. During the school's ongoing operation and maintenance, small amounts of hazardous waste may be produced, including items such as light bulbs, batteries, electronic waste, oil, chemicals, or paint. These materials should be deployed in locations to be determined, likely where the waste is generated, and collected by a qualified contractor, council chemical clean-out, and does not need a specific storage area for them.

5.2 Waste Movement Within School Grounds

Students, staff and visitors are expected to dispose of waste at small waste and recycling stations located throughout the school at popular areas such as outdoor playground, canteen, classrooms and administration areas. Each of these waste stations should feature separate bins for general waste and recycling, along with appropriate signage and colour coding to assist students, staff, visitors and cleaners to dispose of their separate waste materials in the correct bins. The small bins should then be collected at least once each day by cleaning contractors and transported to the waste storage area and sorted into the correct waste stream. This internal servicing method should be conducted outside of the main operational hours to mitigate disturbances to students/staff/visitors. Finally, a waste truck should collect the waste from the WGBs on the collection days.

6 Waste Collection

6.1 Collection point

The waste collection area is located within western portion of the site, in Lot 1 DP 1276279. The appointed waste contractors will collect each waste stream from the waste storage area at nominated times in accordance with their relevant respective waste contracts. The access pathway to the waste collection point must be sufficiently sized 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). Traffic consultant will verify the suitability of the collection pathway for the trucks.

6.2 Bin Size

Waste will be stored and collected from the following standard WGB types listed in Table 6.1.

Table 6.1: Standard Wheelie Garbage Bin Dimensions

Dimensions	120L	240L	660L	1100L
Height (mm)	940	1080	1250	1470
Width (mm)	485	580	1370	1370
Depth (mm)	560	735	850	1245

Notes: Dimensions are in millimetres (mm), mobile garbage bin volume is in litres (L)

6.3 Vehicle Movements

The waste collection area will be discussed with Council and the traffic management consultant. Waste collection vehicles will not block access to nearby properties, roadways, footpaths, or the main pedestrian entrances to the school. Furthermore, waste collection will be conducted with careful consideration for public safety, including the safety of other road users, cyclists, and pedestrians. The waste storage area is located to ensure that the waste collector vehicle can have access to the designated loading area.

Other considerations include:

- The different waste types - general, comingled, cardboard., etc, are collected by separate trucks on different days/time
- Sweep paths for Medium Rigid Vehicle (MRV) (8.8m long x 2.5m wide x 4.5m high) are to be provided by the traffic consultant
- The concrete slab and driveway have the capability to support the weight of a loaded truck and bins/skips
- The collection truck shall enter and leave the school in a forward direction, with adequate area provided for turning of waste vehicles

It is noted that the location of the waste pad would present bins to Majara Street and the bins will be visible from the street/public domain areas. Whilst Majara Street is not currently a public street, it is proposed to be dedicated back to Council eventually while school is operational. As the school is operational on a temporary basis, the impact to the amenity of the area by presenting bins to the street on collection days is to be conducted for a short period of time and is therefore considered suitable at this stage. Noise from waste vehicles must comply with the *Environmental Protection (Noise) Regulations*.

6.4 Collection Hours

Considerations should be made to minimise potential risks associated with truck and bin movements for the school students. The school management shall consult with the waste collection company for collection schedule based on school location and vehicle access. It is preferred that waste collection take place either between the hours of 7-8am or 4-10pm to minimise disruption to school operations and to align with the restrictions outlined in the Noise and Vibration Assessment Report.

6.5 Contractors

A contract with a licensed waste contractor for the removal of waste, who is an approved supplier under the NSW government contract, will be established before either the issuance of an occupation certificate or the start of the school operation, whichever occurs first. This agreement must also consider including provisions for the collection of potentially hazardous waste, such as e-waste, battery and chemicals, and similar. The contract should be reviewed at the end of the contract period to assess the value for money and fit-for-purpose service provided.

Schools must use Contract 9698 agreement in the Buy NSW website for waste collection services. This contract is mandatory and covers waste management services (bins, collection, transport, processing, treatment and disposal). Waste streams include, but is not limited to, general waste, food and organics, paper and cardboard.

7 Ongoing Management

This OWMP serves as the guideline for waste management practices at the new Bungendore North Campus High School, that the school administrative manager, staff, cleaning contractors, and waste collection service should comply with to ensure the efficiency of the system. The stakeholders involved with the OWMP should stay informed about new relevant guidelines and regulations that may arise during the operational phase of the development.

7.1 Signage

Signage will be provided in the waste disposal, storage and collection areas, throughout the school grounds and facilities, demonstrating how to use the waste management system and include what materials are acceptable in each bin. The waste streams will be stored in clearly labelled and colour coded bins to avoid inadvertent mixture of different waste streams. Signage will be prepared and located on site according to the Australian Standard (AS 1319) for safety signs, and the NSW EPA and Australian Standard for recycling signage. Examples of signage can be accessed via EPA link:

<https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs>. Queanbeyan-Palerang Regional Council website:

www.qprc.nsw.gov.au displayed applicable waste signage are presented in Figure 3, Appendix A.

Designers for signs must refer to AS 4123 and AS 4123.7 Mobile Waste Containers - Colours, Markings, and Designation requirements for further guidance on the bin colour, waste stream and waste type.

Table 7.1: AS 4123.7 Waste Storage Requirements

Bin Colour	Waste Stream	Waste Type
Lime Green	Organics	Food Organics and Garden Organics
Yellow	Recycling	Comingled Recycling
Blue	Recycling	Paper and Cardboard
Red	General	General Waste

Key signage aspects will include:

- Refuse waste, commingled recycling, cardboard, paper and organics waste bins to be colour coded and clearly labelled using both words and images with the type of materials that should be put in each bin
- Demonstrating to users on the waste system and to identify hazards or potential dangers within the Waste Storage Area/Loading Dock, including those from the use of waste handling equipment
- Waste Storage Area and waste collection points to have clear and consistent signage instructing staff/cleaners on how to correctly separate 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/cleaning and maintenance personnel inductions and meetings. This initiative will ideally be supported by an effective framework, such as the Waste Wise Schools program. Recycling streams will be monitored and reported by cleaners/school management, as it is imperative that they remain free of contamination to ensure compliance with council and contractor collection protocols. Waste placed in an inappropriate bin shall be escalated, staff and students will be encouraged to maximise the separation of

general waste and mixed recyclables to aid the proper disposal of the materials. The following strategies shall be considered to enhance recycling rates:

- Encourage the use of Recycling Stations and associated recycling bins
- Replace paper towels with hand dryers or other waste minimisation options
- Prohibit single-use plastic items in the school canteen (e.g., straws, cups, plastic cutlery)

School management will be encouraged to provide leaflets on the correct use of the waste and recycling facilities/equipment and define materials which can and cannot be recycled.

Appropriate training will be provided to the persons with responsibility under this OWMP. Training will be conducted annually as a minimum and as part of new employee inductions. Training will be evidenced and validated to ensure those responsible are competent and fully aware of their responsibilities.

7.3 Roles & Responsibilities

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

Table 7.2: Roles and Responsibilities

Responsibility	Activity
School Administration/Management	<ul style="list-style-type: none"> • Ensure staff and students are inducted into the OWMP and other applicable management plans and provided with the waste policy manual. • Responsible for undertaking procurement of operational materials in accordance with the waste management hierarchy. • Undertake inspections to ensure compliance with applicable environmental legislation. • Ensure bins and equipment are suitable in terms of capacity and use. • Maintenance of waste-related signage, colour coding and WGBs. • Security of waste storage during daily operations. • Encourage and facilitate adherence to the OWMP with cleaners, staff, and students by fostering a positive waste management culture within the school. • Regularly engage with staff/cleaners to develop opportunities to reduce waste volumes and increase material recovery. • Review of audit data and set targets to reduce the overall quantity of waste generated and maximise the quantity of materials recycled from the school and the review and update of this OWMP, as required • Ensure suitable systems are in place to meet the schools waste needs. • Provide staff/cleaners with suitable education and training regarding waste and recycling practices onsite • Monitor staff/cleaners behaviour and identify requirements for further education • Address non-compliances by staff/cleaners, if applicable • Co-ordinate waste review meetings • Regularly engage with the waste collection contractors to ensure an efficient and effective waste service is maintained and the waste service providers submit monthly reports on the equipment movements and waste quantities/weights
Cleaners	<ul style="list-style-type: none"> • Adherence to the OWMP. • Transfer of WGBs to the nominated waste storage area and return of WGBs to the school waste collection areas. • Assess manual handling risks and prepare a manual handling control plan for waste and bin transfers • Rotate bins within the waste storage area to ensure easy access to the bins • Cleaning of bins in the waste storage area, as required • Monitor the use of the waste storage area by the staff/cleaners • Clean areas around waste storage area and public way

Responsibility	Activity
	<ul style="list-style-type: none"> • Organise replacement or maintenance requirements for the bins • Investigate and ensure prompt clean-up of illegally dumped waste materials • Prevent stormwater pollution by taking necessary precautions (securing bin rooms, overfilling of bins) • Abide by the relevant Work Health and Safety (WH&S) legislation, regulations and guidelines • Provide cleaning staff/contractors with equipment manuals, training, health and safety procedures, risk assessments, and personal protective equipment (PPE) to control hazards associated with the waste management • Ensure site safety for students, school staff, visitors and contractors • Ensure effective signage, communication and education is provided to maintenance staff and cleaning contractors
Staff	<ul style="list-style-type: none"> • Adherence to the OWMP. • Placement of general waste/recycling waste within correct bins in the waste collection points and in the waste storage area as per the OWMP. • Notify manager/cleaning contractor when bins are overfull and require transport to the WGBs. • Inform the School Facility Manager/Administration of waste management incidences. • Reinforce positive waste management culture amongst colleagues and students. • A centralised "bin hub" approach can be utilised on each floor to eliminate personal desk bins – reducing contamination rates and cleaning costs
Students	<ul style="list-style-type: none"> • Responsible use of waste facilities and appropriate disposal of waste, and responsible for separating their waste and recyclables into the correct bins provided on their floor. • Encouraged to bring your own (BYO) for the following items: reusable water bottles, containers, straws, and reusable utensil sets. • Engage with positive waste management culture as delivered by teachers.
Waste Contractors	<ul style="list-style-type: none"> • Safe and correct collection and disposal of refuse, commingled recycling, cardboard and organics/ streams as per this OWMP. • Maintenance and replacement of bins at the school (if required) • 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 School Facility Manager/Administration.

8 Document Review

8.1 Review of the Plan

As an evaluation of the environmental and economic impacts of the OWMP, a review of the plan can provide baseline measurements which can be evaluated in the future, benchmarking performance alongside other schools and determining internal improvement opportunities.

The OWMP will be revised and updated every 12 months or as required depending on changes at the school.

School Management will undertake regular reviews of the OWMP including the following:

- Waste Management Contract
- Effectiveness of Waste and Recycling Systems
- On-Site Signage and Education of Staff and Cleaners
- Refuse and Recycling Bin Placement, Locations and Infrastructure
- Waste Contractor Performance & Licences
- Data on Recycling Rates
- Overall Recycling Goals and Targets
- New Baseline Data due to Change

8.2 Document Control

Project records, including contractor records, will be maintained to provide evidence of the effective operation of this OWMP, and can be reported as part of the school's annual reporting, and may include:

- Correspondence to/from stakeholders.
- Training records.
- Environmental complaints / enquiries.
- Non-conformance and corrective action records.
- Environmental incidents reports.

9 Mitigation Measures

The requirements, roles and responsibilities associated with specific waste management mitigation measures that are categorised as general, waste disposal, and waste management are outlined below in Table 9.1.

Table 9.1: Waste Management Mitigation Measures

Mitigation Number/ Name	Aspect/ Section	Mitigation Measure/ Requirement	Reason for Mitigation Measure
1. Waste Assessment, Classification and Management	Waste Management	The wastes generated will be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal.	Waste Management System Compliance
2. Collection, Storage and Removal of Waste	General/Waste Management/Waste Disposal	The collection and storage of waste and removal by a licensed contractor.	Waste Management System Compliance
3. Waste Storage infrastructure and Collection Frequency	General/Waste Disposal	Garbage is to be stored and collected on a regular basis. Sufficient space is to be provided for the storage of garbage and recycling.	Waste Management System Compliance/Good Practice
4. Bins Signage	General	The waste bins and storage areas should have adequate signage in place.	Waste Management System Compliance/Good Practice
5. School Waste Collection Areas	General	Waste collection areas have been identified on the school compound.	Waste Management System Compliance/Good Practice
6. Traffic Management and Associated Infrastructure	Waste Disposal	Driveways and loading docks have been designed in accordance with the relevant authority requirements to allow the safe passage of a laden garbage collection vehicle in all seasons.	Relevant Guideline/ Work Health and Safety
7. Education and Training	General	Appropriate training is to be provided to the school management, staff, students, cleaners and contractors, annually as a minimum and as part of new employee inductions. Training should be documented and the outcomes discussed and issues addressed.	Waste Management System Compliance/ Good Practice
8. OWMP Review	General	The OWMP will be reviewed, revised and updated every 12 months or as required depending on changes at the school and formalised.	Good Practice
9. Waste Recording	General/Waste Management/Waste Disposal	Actual volumes of waste and recycling collected are to be obtained and recorded to enable waste volume evaluation by the school.	Waste Management System Compliance/ Good Practice
10. Waste Target Setting	General/Waste Management/Waste Disposal	Achieve, acknowledge and comply with waste targets set for the school. Undertake reasonable processes to reach the waste targets determined for the school.	Waste Management System Compliance/ Good Practice

10 Evaluation of Environmental Impacts

As an evaluation of the environmental impacts of operational waste management it is concluded that:

1. The extent and nature of potential impacts are low and will not have significant impact on the locality, community and/or the environment.
2. Potential impacts can be appropriately mitigated or managed through the Mitigation Measures, listed above in Section 9, to minimise impact on the locality, community and/or the environment.

11 Limitations

This report has been prepared for use by the Client and DoE who commissioned the works in accordance with the project brief only and has been based in part on information obtained from the Client and other parties. The report has been prepared specifically for DoE for the purposes of the commission and use by any nominated third party in the agreement between Geosyntec and the Client. No warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party (other than where specifically nominated in an agreement with the Client).

This report relates to only this project and all results, conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be reproduced without prior approval by the Client or amended in any way without prior approval by Geosyntec.

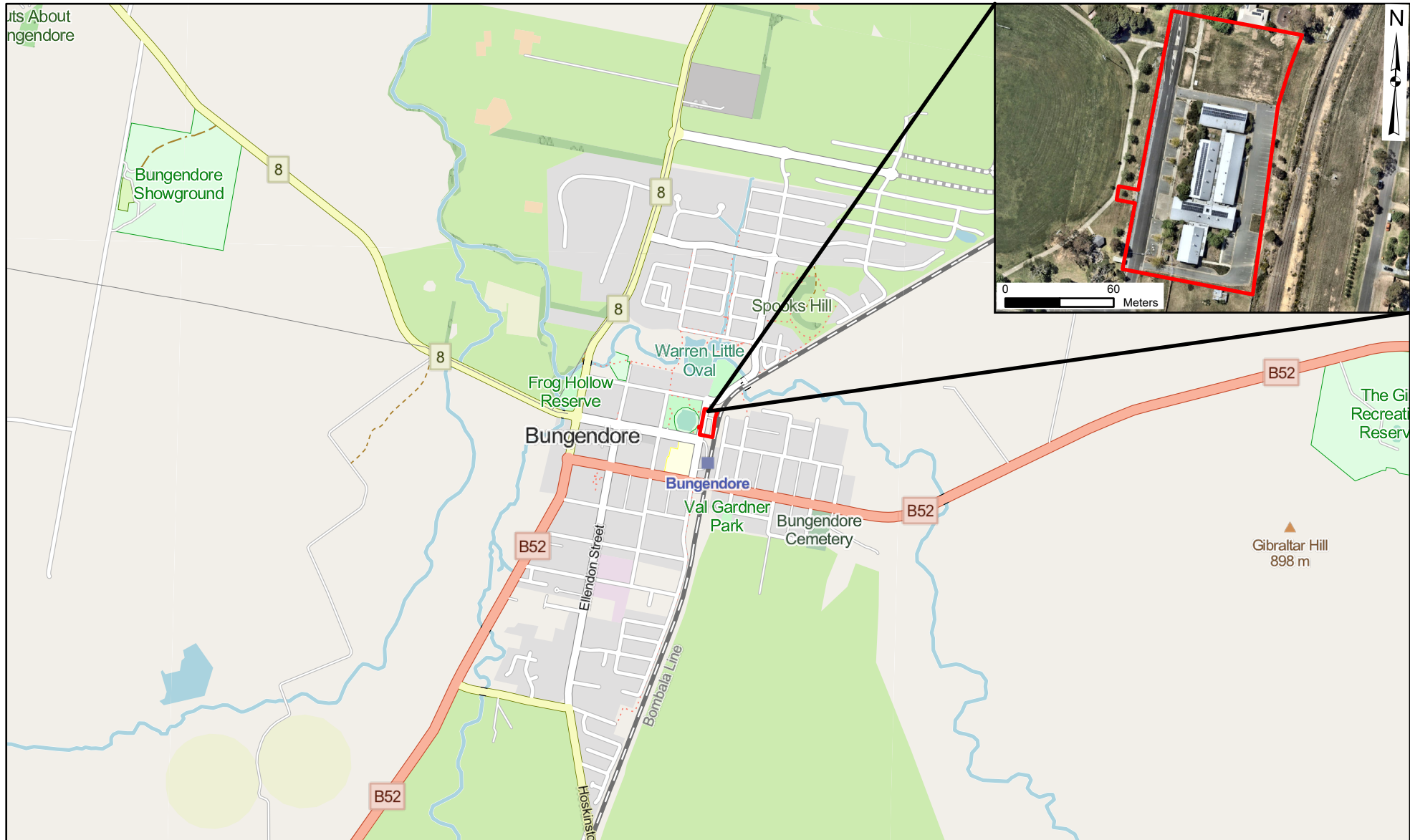
Subject to the scope of work, Geosyntec's assessment was limited strictly to typical environmental conditions associated with the subject property area and does not include evaluation of any other issues.

This report does not comment on any regulatory obligations based on the findings. This report relates only to the objectives stated and does not relate to any other work conducted for the Client.

All conclusions regarding the site are the professional opinions of the Geosyntec personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, Geosyntec assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Geosyntec, or developments resulting from situations outside the scope of this project.

Geosyntec is not engaged in environmental assessment and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes. The Client acknowledges that this report is for its exclusive use.

Appendix A Figures



Legend

Site Boundary

Notes:
Image source: Nearmap (10 October 2024)
Spatial Reference Name: GDA2020 MGA ZONE 55



0 600
Meters

Site Location Map

Bungendore High School North Campus
4-6 and 10 Majara Street
Bungendore NSW 2621

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Figure

1

AU124170

April 2025



Legend

- Site Boundary
- Lot Boundary

Notes:
 Image source: Nearmap (10 October 2024)
 Spatial Reference Name: GDA2020 MGA ZONE 55



0 30
 Meters

Existing Site Layout

Bungendore High School North Campus
 4-6 and 10 Majara Street
 Bungendore NSW 2621

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 consultants

Figure

2

AU124170

April 2025

✓ YES

- Soft plastics
- Broken glass and crockery
- Fabrics and toys
- Toiletries and nappies
- Polystyrene and plastic-lined paper
- Other household rubbish that isn't eligible for recycling or FOGO

✗ NO

- Hazardous items including gas bottles, fluorescent lights, smoke alarms, paints, oil, fire extinguishers, batteries, and chemicals: these items can go to a Community Recycling Centre.
- Building materials including soil, rocks, concrete, asbestos.
- Garden waste.
- Syringes or sharps: please dispose of these items at a chemist or other approved disposal site.

Never fill your bin above the top. Make sure you can close the lid!

For more information and terms and conditions of use, please contact Council on 1300 735 025 or visit www.qprc.nsw.gov.au

✓ YES

- Paper and cardboard
- Glass bottles and jars
- Plastic bottles and containers
- Aluminium or steel cans
- Milk and juice cartons

Keep it loose! Never put your recycling in a garbage bag, box, or container. Keep everything separate!

Never fill your bin above the top. Make sure you can close the lid!

For more information and terms and conditions of use, please contact Council on 1300 735 025 or visit www.qprc.nsw.gov.au

✓ YES

- Council supplied AS4736 certified compostable liners
- egg shells, milk and cheese (dairy products)
- take away food and leftovers
- meat, bones and seafood scraps (including oyster shells)
- vegetable and fruit scraps
- tea leaves and coffee grounds
- bread, pastries, flours (including rice)
- grass clippings, leaves, sticks, small branches

PLACE YOUR BINS OUT THE NIGHT BEFORE COLLECTION. KEEP THE LID CLOSED.

For more information and terms and conditions of use, please contact Council on 1300 735 025 or visit www.qprc.nsw.gov.au

✗ NO

- plastic bags
- polystyrene
- nappies or wipes
- pet poo or kitty litter
- building waste
- dirt or soil
- tree stumps larger than 150mm diameter
- plywood
- particle board
- treated, painted, stained or laminated timber
- wires or cables
- food packaging
- cardboard
- ANY non-organic material

Notes:
This product has been created to support the main report and is not suitable for other purposes.
Image taken from the Queanbeyan-Palerang Regional Council website: www.qprc.nsw.gov.au

Waste Guide and Signage

Bungendore High School North Campus
4-6 and 10 Majara Street Bungendore NSW 2621

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Figure

3

AU124170

January 2025

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