



Woolworths Group

Construction Operational Waste
Management Plan
Woolworths Distribution Centre
(SSD-15221509)

250-266 Victoria Street
Wetherill Park, NSW

7 July 2021



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1. Introduction

1.1 Background

Land & Groundwater Consulting Pty Ltd (LG) has been engaged by Project Strategy, on behalf of Woolworths Group Limited (Woolworths Group), to prepare a Construction Operational Waste Management Plan (COWMP) in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of State Significant Development (SSD) SSD-15221509 for the proposed construction and operation of a warehouse and distribution centre located at 250-266 Victoria Street, Wetherill Park, NSW (hereafter referred to as 'the site').

The site is legally described as part of Lots 1 to 4 in Deposited Plan (DP) 781975. The site location and layout are shown in **Figures 1** and **2**, respectively.

Specifically, this WMP addresses the following SEARs:

Table 1 – Summary of SEARs

SEARs	Report Reference
Details of the quantities and classification of all waste streams to be generated on site during construction and operation.	Sections 4.1, 4.2 and 4.3.
Details of waste storage, handling and disposal during the construction and operation of the development, including plans of waste storage and collection areas.	Sections 5.3, 6.3, 7.1 and 7.2.
Details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021.	Sections 5.1, 5.2, 6.1 and 6.2.

1.2 Objectives

The objectives of the COWMP are:

- To document the procedures that will be undertaken to manage the wastes generated as part of the development works;
- To provide details of the quantities and classification of waste and wastewater (if any) to be generated onsite;
- To provide details on waste storage, handling and disposal (including the location of waste storage and management facilities); and
- To provide details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021*.

2. Project Summary

2.1 Project Overview

The proposed use of the site will be as warehouse and distribution centre, 7-day basis, consistent with an IN1 General Industrial zoning.

The proposed development will accommodate the following areas of the site:

- Basement (L0) building area of 2,235 m².
- Ground floor (L1) fresh distribution centre building area of 42,217 m².
- First floor (L2) chilled distribution centre building area of 33,037 m².
- Total 767 parking bays provided; and
- Total 155 bicycle bays provided.

2.2 Project Schedule

The only significant waste to be generated by the development is anticipated to be construction waste, which will be stored in allocated areas of the site (refer **Figure 3**) and generated during the following development construction stages:

- Construction of building facility pads, structures and related amenities; and
- Amendments to lead-in services including electricity, sewer and potable water.

All operational waste producing activities such as packaging material, servicing of equipment and employee amenities will be located within the warehouse distribution centre. Waste storage and management facilities will comprise colour coded recycling bins, which will be utilised to dispose off any packaging waste. The recycling bins will be located within the waste management, storage and compaction areas (refer, **Figure 4**), and collected by a regulated waste contractor.

3. Waste Regulatory Framework

3.1 Protection of the Environment Operations Act 1997

Wastes in NSW are classified for disposal or transport into categories. It is the responsibility of those who generate the waste to classify it into groups that pose risks to the environment and human health facilitates their management and appropriate disposal.

All material to be removed from the site (including associated activities such as classification) will be undertaken in strict accordance with the requirements of the POEO Act 1997. Such requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Waste materials are disposed of to appropriately licensed facilities; and
- Other materials are removed to facilities lawfully able to accept such materials.

LG understands that the site is subject to an existing Environment Protection Licence (EPL 21054) under the POEO Act 1997.

3.2 Waste Avoidance and Resource Recovery Act 2001

The Waste Avoidance and Resource Recovery (WARR) Act 2001 establishes the waste hierarchy to ensure that resource management options are considered against the following priorities:

1. Avoidance – actions to reduce the amount of waste generated and undertaking activities;
2. Resource Recovery – which includes reuse, reprocessing, recycling and energy recovery, consistent with the most efficient use of the recovered resources; and
3. Disposal – an “end-of-pipe” option that must be carefully undertaken to minimise any negative environmental outcomes.

The objectives of the WARR Act 2001 include:

- To encourage the most efficient use of resources;

- To minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste;
- To ensure that industry shares with the community the responsibility for reducing; and
- To ensure the efficient funding of waste and resource management planning, programs and service delivery.

3.3 Protection of the Environment Operations (Waste) Regulation 2014

The Regulation encourages the recovery of resources from waste by issuing both general and specific resource recovery exemptions. Where no general exemption is available for the intended use, a specific exemption may be issued after an application is made to the NSW EPA. Specific exemptions are not publicly available.

The Regulation makes requirements relating to non-licensed waste activities and waste transporting. The proposed works on the site will not require to be licensed. Section 48 of the Regulation requires that wastes are stored in an environmentally safe manner. It also stipulates that vehicles used to transport waste must be covered when loaded.

The Regulation exempts certain waste streams from the full waste tracking and record keeping requirements. Waste tracking is required only for industrial and hazardous wastes.

3.4 Better Practice Guidelines 2012

The NSW EPA (2012) *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012* promotes efficient waste minimisation and resource recovery for commercial and industrial facilities and is used as a benchmark document when assessing waste production rates within Australia.

Better practice waste management systems in commercial buildings may incorporate any, or all, of the following:

- Garbage services to manage residual wastes (those not collected by a dedicated recycling or organics collection service).

- Recycling services to manage dry recyclable materials. These materials may vary from building to building, but generally cover recyclable materials generated in a typical business, including office paper, cardboard, plastic film, metals and recyclable containers.
- Organics services to manage garden and food organics, which may include a bin-based collection system or onsite composting.
- Bulky waste services to manage bulky items, such as furniture and fit-out materials.
- Special waste services for items such as toner cartridges, batteries, fluorescent lights, mobile phones and chemicals.

3.5 Waste Avoidance and Resource Recovery Strategy 2014 - 2021

The NSW Government's priority areas and actions for waste avoidance and resource recovery is outlined in the Waste Strategy 2014-2021.

The six identified "key result areas" in the Strategy are:

- Key Result Area 1: Avoid and reduce waste generation (for assessment of proposed measures refer Sections 5.1 and 6.1 of this report).
- Key Result Area 2: Increase recycling (for assessment of proposed measures refer Sections 5.2 and 6.2 of this report).
- Key Result Area 3: Divert more waste from landfill (for assessment of proposed measures refer Sections 5.2 and 6.2 of this report).
- Key Result Area 4: Manage problem wastes better (for assessment of proposed measures refer Sections 5.1 and 6.1 of this report).
- Key Result Area 5: Reduce litter (for assessment of proposed measures refer Sections 5.1 and 6.1 of this report).
- Key Result Area 6: Reduce illegal dumping (for assessment of proposed measures refer Sections 5.2 and 6.2 of this report).

The Strategy also includes the following recycling targets (as relevant to the proposed works at the site)¹:

- Increased recycling of commercial and industrial waste from 57% (in 2010-11) to 70% by 2021-21; and
- Increased recycling of construction and demolition waste from 75% (in 2010-11) to 80% by 2021-21.

3.6 Waste Classification Guidelines 2014

Soil materials proposed to be disposed offsite (if any) shall be assessed, classified and managed in accordance with the NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

¹ *NSW Waste Avoidance and Resource Recovery Strategy 2014–21*, NSW EPA, December 2014.

4. Estimated Waste

4.1 Construction Waste

The estimated monthly construction waste quantities are summarised in **Table 1**.

Table 2 – Estimated Monthly Construction Waste

Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and /or waste depot to be used
	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	
Excavated materials	0	0	0	NA
Green waste	0	<8	0	Recycling Outlet
Bricks/pavers	0	<17 m ³ (offcuts)	0	Recycling Outlet
Tiles	0	<17 m ³ (offcuts)	0	Recycling Outlet
Concrete	0	<42	0	Recycling Outlet
Plasterboard	0	<8	0	Recycling Outlet
Asbestos	0	0	0	NA
Metal – specify	0	<80 m ³ (steel offcuts)	0	Recycling Outlet
Timber - specify	0	<80 m ³	0	Recycling Outlet
General waste	0	0	<30 m ³	Waste Management Centre
Plastic	0	<42 m ³	0	Recycling Outlet
Paper/cardboard	0	<58 m ³	0	Recycling Outlet
Total	0	<352 m³	<30 m³	

4.2 Operational Waste

The estimated weekly operational waste quantities are summarised in **Table 2**.

Table 3 – Estimated Weekly Operational Waste

Type of Waste Generated	Reuse	Recycling	Disposal	Method of on-site reuse, contractor and recycling outlet and /or waste depot to be used
	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	
Excavated materials	0	0	0	NA
Green waste	0	0	0	NA
Bricks/pavers	0	0	0	NA
Tiles	0	0	0	NA
Concrete	0	0	0	NA
Plasterboard	0	0	0	NA
Asbestos	0	0	0	NA
Metal – specify	0	0	0	NA
Timber - specify	0	0	0	NA
Other waste – specify (eg. paints, PVC tubing)	0	0	<1 m ³ (GSW)	Waste Management Centre
Packaging (used pallets, pallet wrap)	0	<2 m ³	0	Recycling Outlet
Containers (cans, plastic, glass)	0	<1 m ³	0	Recycling Outlet
Paper/cardboard	0	<2 m ³	0	Recycling Outlet
Total	0	<5 m³	<1 m³	

5. Construction Waste Reduction Plan

5.1 Waste Reduction Measures

Waste-type-specific reduction measures will be employed during construction stages, with the following specific procedures:

- Applying practical building designs and construction techniques;
- Appropriate sorting and segregation of construction wastes to ensure efficient recycling of wastes;
- Selecting construction materials taking into consideration to their long lifespan and potential for reuse;
- Ordering materials to size and ordering pre-cut and prefabricated materials;
- Reuse of formwork (where possible);
- Planned work staging;
- Reducing packaging waste on-site by returning packaging to suppliers where possible, purchasing in bulk, requesting cardboard or metal drums rather than plastics, requesting metal straps rather than shrink wrap and using returnable packaging such as pallets and reels;
- Careful on-site storage and source separation;
- Subcontractors informed of site waste management procedures; and
- Coordination and sequencing of various trades.

5.2 Beneficial Reuses

The anticipated beneficial reuses of construction waste are summarised as follows:

- All solid waste timber, concrete, tiles and rock that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with SafeWork Authority and EPA requirements;

- Portable, self-contained toilet and washroom facilities will be provided at the site and will be regularly emptied and serviced by a suitably qualified contractor;
- Provision for the collection of batteries, fluorescent tubes and other recyclable resources will be provided onsite to enable offsite recycling;
- Drink container recycling should be provided onsite or these items sorted offsite for recycling at an appropriately licensed facility;
- All garbage will be disposed of via a council approved system; and
- Opportunities for materials exportation and reuse with other local construction operations will be investigated.

5.3 Waste Storage Locations

Waste storage locations will be accessible and allow sufficient space for storage and servicing requirements. These locations will also be flexible in order to cater for change of use throughout the development construction stages.

Where space is restricted, dedicated stockpile areas are to be delineated on the site, with regular transfers to dedicated skip bins for sorting. The positions of the designated waste holding areas on site will change according to building works and the progression of the development, but must consider visual amenity, OH&S and accessibility in their selection.

All waste placed in stockpile areas/skips for disposal or recycling shall be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site. Appropriate siting of waste stockpile locations will take into account slope and drainage factors to avoid contamination of stormwater drains during rain events.

Waste/recycling storage locations will be assigned during the construction works and will provide adequate space to accommodate all waste and recycling bins (up to approximately 10 x 1,000 L bins or equivalent receptacles) associated with the construction (refer **Figure 3**). Recycling bins must be accessible to all construction employees and must be clearly sign posted and colour coded to ensure segregation of waste and recycling is effective. Waste containers are to be kept clean and in a good state of repair.

6. Operational Waste Reduction Plan

6.1 Waste Reduction Measures

Waste-type-specific reduction measures will be employed during development operation, with the following specific procedures:

- Provision of take back services to clients to reduce waste further along the supply chain;
- Re-work/re-packaging of products prior to local distribution to reduce waste arising;
- Review of packaging design to reduce waste but maintain 'fit for purpose';
- Investigating leased office equipment and machinery rather than purchase and disposal;
- Establish systems with in-house and with supply chain stakeholders to transport products in re-useable packaging where possible;
- Development of 'buy recycled' purchasing policy;
- Flatten or bale cardboard to reduce number of bin lifts required; and
- Providing recycling collections within each of the offices and tearooms (e.g. plastics, cans and glass).

6.2 Beneficial Reuses

The anticipated beneficial reuses of operational waste are summarised as follows:

- Cardboard, paper, plastic, glass, cans and pallets and containers will be reused/recycled offsite;
- Provision for the collection of batteries, fluorescent tubes and other recyclable resources will be provided on site to enable offsite recycling;
- All waste materials that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner;

- Waste oil (if any) used in equipment maintenance will be recycled or disposed of in an appropriate manner; and
- Opportunities for materials exportation and reuse with other local industrial operations will be investigated. This will have two benefits: minimising energy through reduction of material reprocessing, encouraging material reuse.

6.3 Waste Storage Locations

Waste storage locations will be provided within the waste management, storage and compaction area at the north eastern side of the Warehouse (refer **Figure 4**) where the recycling bins, garbage skips, plastic and cardboard compactors will be stored prior to collection. Sufficient clearance will be necessary to enable collection vehicles to access the locations of bin storage. Where possible collection times should not coincide with peak operational delivery schedules however all areas identified will not interfere with operational truck movements.

The construction of locations for garbage storage are to comply with BCA (Building Code of Australia) requirements and Australian Standards, including CoC requirements for screening and fencing.

Waste/recycling storage locations will be constructed of an adequate size to accommodate all waste and recycling bins and bales associated with the development. Recycling bins must be accessible to all employees and must be clearly sign posted and colour coded to ensure segregation of waste and recycling is effective.

Sufficient space will be provided for the segregation and storage of varying waste types including provision for the collection of fluorescent tubes, smoke detectors, e-wastes and other recyclable resources.

Sufficient space will also be provided for reuse items such as crates and pallets for occupational safety purposes.

Doors/gates to the waste storage locations will be able to be opened from the outside and wide enough to allow for easy passage of waste/recycling containers.

7. Waste Classification and Removal

7.1 Waste Classification

All liquid and non-liquid wastes generated during development construction works (if any) shall be classified in accordance with the requirements of NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

Samples shall be collected by appropriately trained and experienced personnel from stockpiled or in-situ waste materials by the use of a hand trowel. The hand trowel shall be thoroughly decontaminated using phosphate free detergent and distilled water between each sampling location.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indications of contamination should be noted on the field documentation.

Collected soil samples shall be immediately transferred to sample containers of appropriate composition (glass jars). Sample labels shall record job number; sample identification number; and date and time of sampling.

Sample containers shall be transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form should be completed and forwarded with the samples to the testing laboratory.

Soil samples shall be analysed by both a primary and secondary (independent check) laboratory, both of which shall be NATA accredited for the required analyses. In addition, the laboratories will also be required to meet the environmental consultant's own internal quality assurance requirements.

The analytical data shall be compared against the waste criteria contained in NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste* for heavy metals, TRHs, BTEX, PAHs, total pesticides (OCPs and OPPs), PCBs and TCLP in benzo(a)pyrene, lead and nickel. A summary of the criteria is provided in **Table 4**.

Table 4 – Summary of Waste Classification Criteria

Contaminant	General ¹	Restricted ¹	General ²	Restricted ²	General ³	Restricted ³
	CT1	CT2	SCC1	SCC2	TCLP1	TCLP2
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(µg/L)	(µg/L)
Heavy metals						
Arsenic	100	400	500	2000	5.0	20
Cadmium	20	80	100	400	1.0	4
Lead	100	400	1500	6000	5	20
Mercury	4	16	50	200	0.2	0.8
Nickel	40	160	1050	4200	2	8
BTEX						
Benzene	10	40	18	72	0.5	2
Toluene	288	1152	518	2073	14.4	57.6
Ethylbenzene	600	2400	1080	4320	30	120
Xylenes (total)	1000	4000	1800	7200	50	200
Petroleum Hydrocarbons						
C₆-C₉	N/A	N/A	650	2600	N/A	N/A
C₁₀-C₃₆	N/A	N/A	10000	40000	N/A	N/A
PAHs						
Benzo(a)pyrene	0.8	3.2	10	23	0.04	0.16
PAHs (total)	N/A	N/A	200	800	N/A	N/A
Pesticides (total)	N/A	N/A	250	1000	N/A	N/A
PCBs (total)	N/A	N/A	<50	<50	N/A	N/A

Notes:

1. Contaminant threshold values for classifying waste by chemical assessment without the leaching (TCLP) test (Table 1) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.
2. Specific contaminant concentration (SCC) values for classifying waste by chemical assessment (Table 2) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.
3. Leachable concentration (TCLP) values for classifying waste by chemical assessment (Table 2) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

7.2 Waste Transporting

All wastes removed from the site shall be transported in accordance with relevant road and transportation regulatory requirements. Where required (depending on the classification of the wastes), appropriately licensed transport contractors shall be used.

The appointed transporters shall be responsible for ensuring they are appropriately licensed to:

- Carry the particular type of waste; and
- Transport the materials to an appropriately licensed facility.

Where the waste is classified as Restricted Waste or Hazardous Waste, the transporter is required to carry (subject to a number of exceptions) appropriately completed waste data forms with each load, and provide a copy to the waste facility to which the waste is taken.

8. Limitation Statement

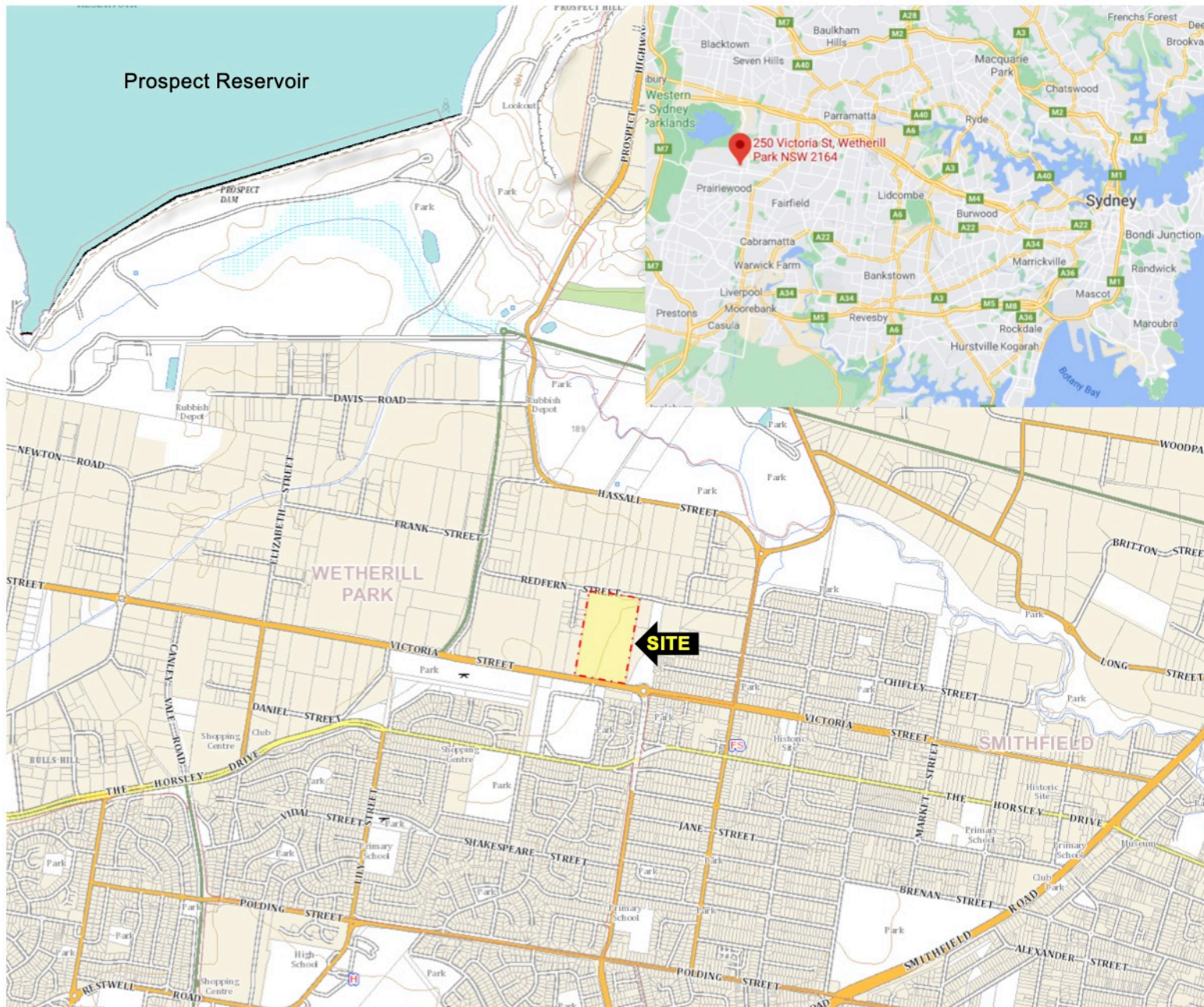
This report has been prepared for use by Woolworths Group Limited who commissioned the works in accordance with the project brief only and has been based in part on information obtained from other parties. The advice herein relates only to this project and all information provided should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. Additionally, this report has been based on data documented by other parties in previous reports.



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Waste quantities and sources are based on documents made available to LG consult by Woolworths Group Limited.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein.

Figures



SCALE: DRAWN TO SCALE AS SHOWN		NORTH
Not To Scale		
LEGEND:		
	Site Boundary	
Image courtesy of Google & Six Maps		
	REV:	A
	DATE:	28/02/2021
	DRAWN:	GP
	APPROVED:	GP
	STATUS:	Final
DWG NO:		
CLIENT: Woolworths Group		
PROJECT: 250-266 Victoria Street		
PROJECT NUMBER: LG2048.01		
TITLE: Site Location Plan		FIGURE:
		1
		A4



SCALE: DRAWN TO SCALE AS SHOWN <h1>Not To Scale</h1>		
LEGEND: <div> Site Boundary </div>		
Image courtesy of Google Maps		
	REV: A DATE: 28/02/2021 DRAWN: GP APPROVED: GP STATUS: Final DWG NO:	
	CLIENT: Woolworths Group PROJECT: 250-266 Victoria Street PROJECT NUMBER: LG2048.01	
TITLE: Site Layout	FIGURE: 2 <small>A4</small>	

