

**SEPP 33 Screening Study**  
**ACCOMPANYING A DEVELOPMENT APPLICATION**

**PROPOSED Bunnings Warehouse**

**Kingsgrove , NSW**

10<sup>th</sup> February, 2014

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# 1. Proposal Identification and Description

## 1.1. Purpose of Statement

This SEPP 33 review is to accompany a Development Application (DA) to Canterbury City Council's for approval for a proposed Bunnings Warehouse at Cnr Kingsgrove Rd, and Richland Street, Kingsgrove, NSW. The objectives of this report are to:

- Describe the existing site in its context
- Provide information on the proposed works
- Provide a screening analysis of the key issues and implications of the proposed development against SEPP 33 threshold requirements for storage and transport of bulk dangerous goods

## 1.2. Proposal and Background

As at December 2013, Bunnings Group limited operated 191 Bunnings Warehouse stores and 57 smaller format Bunnings stores, across Australia and New Zealand. Bunnings Properties Pty Ltd (hereafter known as Bunnings) is currently preparing a Development Application to the Canterbury City Council for a new warehouse facility at Kingsgrove. Bunnings has engaged Sinclair Knight Merz (SKM) to prepare this SEPP 33 review in support of a DA for the proposed warehouse. The body of this report details the characteristics of the subject application and analyses the SEPP 33 risk implications of the proposal as well as proposed safeguards.

## 1.3. Proposal Identification

Name and location of proposed activity	155-163 Kingsgrove Rd, and 30-38 Richland Street, Kingsgrove, NSW
Proponent / source of funding	Bunnings Properties Pty Ltd
Applicant	Bunnings Properties Pty Ltd
Council Area	Canterbury City Council
Description of Proposal	Warehouse Development and associated hardware store, and ancillary facilities.
Title description	<p>Street No.: 155 Street: Kingsgrove Road Lot: A Deposited Plan: 338408</p> <p>Street No.: 157 Street: Kingsgrove Road Lot: B Deposited Plan: 338408</p> <p>Street No.: 159-163 Street: Kingsgrove Road and Street No: 32 Richland St Lot: 100 Deposited Plan: 1003888</p> <p>Street No.: 38 Street: Richland Street Lot: A Deposited Plan: 356793</p> <p>Street No.: 36 Street: Richland Street Lot: B Deposited Plan: 356793</p> <p>Street No.: 34 Street: Richland Street Lot: C Deposited Plan: 356793</p> <p>Street No.: 30 &amp; 30A Street: Richland Street Lot: 32 Deposited Plan: 5837</p>

## 2. Description of Proposed Development

The new Bunnings warehouse building proposed will occupy the greater part of the site with:

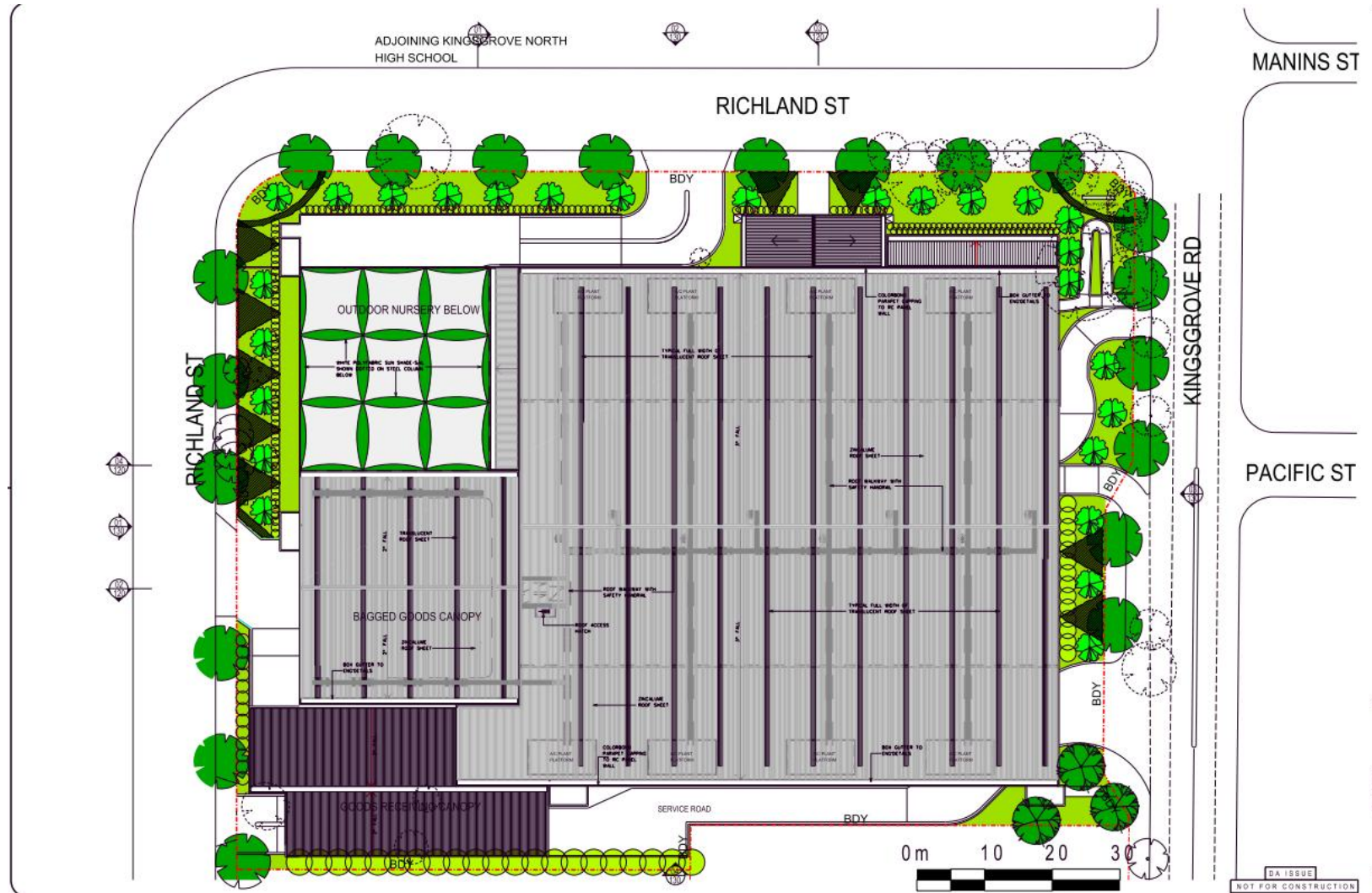
Warehouse L1	-	6000 m <sup>2</sup>
Warehouse L2	-	4500 m <sup>2</sup>
Trade area	—	1800 m <sup>2</sup>
Outdoor Nursery	-	780 m <sup>2</sup>
Bagged Goods canopy	-	1020 m <sup>2</sup>

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**Total Floor area - 14,100 m<sup>2</sup>**

A total of 423 parking spaces will be provided in 2 underground areas with vehicle access from Kingsgrove Road. All these facilities are combined in an integrated plan as depicted in Figure 1– Site Plan.

( Note: reference should be made to the DA and supporting documentation for all site plans)

Figure 1 – Site Plan



### 3. Dangerous Goods Transport and Storage Proposed

#### 3.1. Dangerous Goods Storage

As part of Bunnings operations, it is necessary to store and handle a number of Dangerous Goods. These are listed in Appendix A – Dangerous Goods Stored. The table provides the material, type of container, dangerous goods class, and maximum quantity stored.

Note that Bunnings' advise that there is no bulk storage of LP Gas, or other bulk dangerous goods associated with this proposal.

#### 3.2. Transport of Dangerous Goods

Dangerous Goods movements are summarised in Appendix B : Predicted Dangerous Goods Movements. Note that most dangerous goods will be received in flat bed lorries or trailers, already pre packed, shrink wrapped and palletised. The quantities of dangerous goods typically stored is provided in Appendix A. Total storage amounts to around 25 – 30 tonnes.

Goods range from Class 2 .1 Liquefied flammable gases ( LPGas exchange cylinders ) in 9 kg cylinders and Class 3 Flammable liquid solvents and paints.

## 4. SEPP 33 Screening Analysis

A Screening Analysis was performed to determine whether or not dangerous goods stored or transported exceeds the threshold criteria provided in the NSW Department of Plannings SEPP 33 guidelines.

The general screening quantities for dangerous goods stored and transported are provided in Tables 1 and 2 respectively;

Class	Screening Threshold	Description
1.2	5 tonne	or are located within 100 m of a residential area
1.3	10 tonne	or are located within 100 m of a residential area
2.1	(LPG only — not including automotive retail outlets <sup>1</sup> )	
	10 tonne or 16 m <sup>3</sup>	if stored above ground
	40 tonne or 64 m <sup>3</sup>	if stored underground or mounded
2.3	5 tonne	anhydrous ammonia, kept in the same manner as for liquefied flammable gases and not kept for sale
	1 tonne	chlorine and sulfur dioxide stored as liquefied gas in containers <100 kg
	2.5 tonne	chlorine and sulphur dioxide stored as liquefied gas in containers >100 kg
	100 kg	liquefied gas kept in or on premises
	100 kg	other poisonous gases
4.1	5 tonne	
4.2	1 tonne	
4.3	1 tonne	
5.1	25 tonne	ammonium nitrate — high density fertiliser grade, kept on land zoned rural where rural industry is carried out, if the depot is at least 50 metres from the site boundary
	5 tonne	ammonium nitrate — elsewhere
	2.5 tonne	dry pool chlorine — if at a dedicated pool supply shop, in containers <30 kg
	1 tonne	dry pool chlorine — if at a dedicated pool supply shop, in containers >30 kg
	5 tonne	any other class 5.1
5.2	10 tonne	
6.1	0.5 tonne	packing group I
	2.5 tonne	packing groups II and III
6.2	0.5 tonne	includes clinical waste
7	all	should demonstrate compliance with Australian codes
8	5 tonne	packing group I
	25 tonne	packing group II
	50 tonne	packing group III

**Note:** The classes used are those referred to in the Australian Dangerous Goods Code and are explained in Appendix 7.

**Table 1 – General Screening Threshold Quantities for Dangerous Goods Stored**



Class	Vehicle Movements		Minimum quantity*	
	Cumulative Annual	Peak or Weekly	per load (tonne)	
			Bulk	Packages
1	see note	see note	see note	
2.1	>500	>30	2	5
2.3	>100	>6	1	2
3PGI	>500	>30	1	1
3PGII	>750	>45	3	10
3PGIII	>1000	>60	10	no limit
4.1	>200	>12	1	2
4.2	>100	>3	2	5
4.3	>200	>12	5	10
5	>500	>30	2	5
6.1	all	all	1	3
6.2	see note	see note	see note	
7	see note	see note	see note	
8	>500	>30	2	5
9	>1000	>60	no limit	

**Note:** Where proposals include materials of class 1, 6.2 or 7, the Department of Planning should be contacted for advice. Classes used are those referred to in the Dangerous Goods Code and are explained in Appendix 7.

\* If quantities are below this level, the potential risk is unlikely to be significant unless the number of traffic movements is high.

Table 2 – Transportation Screening Thresholds

The screening method is described in the NSW Department of Plannings document *Applying SEPP 33*, and essentially if the quantity of dangerous goods stored or transported as proposed by Bunnings exceeds the Threshold quantities contained in Tables 1 & 2 above then a Preliminary Hazard Analysis is required to cover the potential hazards.

#### 4.1. Dangerous Goods Included in Screening Review

The potential maximum quantities for dangerous goods (under SEPP 33 ) envisaged are as described in Table 1. Subject to the notes 1 – 5.

Class	Quantity Stored (kg)	SEPP33 Threshold (kg)	Conclusion/Determination
2.1 – Flammable Gases , , and aerosols (excluding LP Gas)	2,750 kg	4,000	Not exceeded– See note 3
2.1 LP Gas	8000	10 ,000	Not exceeded
Class 3 Pg II & III including Paints, thinners	111,690	400,000	Not exceeded
Class 4.1 – Flammable solids	30	5 ,000	Not exceeded
Class 5 – oxidisers	1625	5 ,000	Not exceeded
Class 6	80	2,500	Not exceeded
Class 8 pg II	2830	25,000	Not exceeded
Class 9 pg III	20	No details	No Details
C1 and C2	2170	no limit	Not exceeded

Table 1: Screening Analysis Outcome

Note 1. If Diesel is stored with other flammables then it is to be treated as Class 3 Pg III. ( this is not the case)

Note 2 – Distance to boundary is taken as 20m, as this is the set-back form the boundary for the main warehouse.

Note 3 – The distance from the aerosol store to the boundary is somewhat greater, located on the 2<sup>nd</sup> floor it is estimated the store would be 50m from the boundary ( this gives a threshold qty for aerosols of 4000 kg).

#### 4.2. Dangerous Goods Tanker Deliveries

The document '*Applying SEPP33*' includes a number of tables and graphs against which the transportation screening thresholds are compared with the proposed tanker deliveries for the site, these are summarised in Appendix B. As shown transport threshold movements are not exceeded.

## 5. SEPP 33 Review Conclusions & Recommendations

It is concluded that SEPP33 does not apply to the Bunnings Kingsgrove proposal, and therefore a Preliminary Hazard Analysis is not required to accompany the DA to Canterbury Council. For determination, however this report can be tabled to demonstrate SEPP 33 thresholds are not exceeded. Under such circumstances, the NSW DoP regards the proposed development as non-hazardous.

## Appendix A. Proposed Dangerous Goods Storage

Depot	Name of Dangerous Substance	Class	PG	Expected Max Qty Kgs/Lts
<b>LPG 1&amp;2</b>	Liquid Petroleum Gas – Exchange Cylinders	2	n/a	8000
<b>G</b>	Insect Sprays, etc	2	n/a	450
<b>G</b>	Granular chlorine, chlorine tablets, Spa tablets, Stabilized Chlorine	5	II	1610
<b>G</b>	Spa Shock – Sodium Persulphate	5	III	10
<b>G</b>	Liquid Chlorine, Salt Cell Cleaner	8	III	1000
<b>G</b>	Matches	4.1	III	10
<b>G</b>	Citronella Oil	C1	n/a	900
<b>G</b>	Motor Oil, Lubricant Oil	C2	n/a	1030
<b>D</b>	Aerosols, Spray Paints etc.	2	n/a	2000
<b>D</b>	Methylated Spirits, Thinners, etc.	3	II	415
<b>D</b>	Turpentine, Kerosene, etc.	3	III	1150
<b>D</b>	Manufactured product - Paint, Adhesives, Sealants	3	III	9360
<b>D</b>	Paint Stripper	6	III	80
<b>D</b>	Fibreglass Catalyst	5	II	5
<b>D</b>	Linseed Oil, Degreaser	C1	n/a	240
<b>T</b>	Ramset Explosive Cartridges	1	II	80
<b>T</b>	Turpentine, Kerosene, etc.	3	III	350
<b>T</b>	Methylated Spirits, Thinners, etc.	3	II	415
<b>T</b>	Aerosols, Spray Paints etc.	2	n/a	300
<b>T</b>	Hydrochloric Acid, Caustic Soda	8	II	800
<b>T</b>	Oxalic Acid	8	III	1030
<b>T</b>	Camphor, Napthalene	4.1	III	20
<b>T</b>	Adhesives	9	III	20

**TOTAL DANGEROUS GOODS STORAGE: - 29,275 L/Kg**

## Appendix B. Predicted Dangerous Goods Movements

Product Name/ Description	Typical Products	Bunnings Kingsgrove Proposed DG Vehicle Max Movements/ Annum	NSW DOP Threshold	Conclusion / Determination
Class 2.1 LP Gas -	LP Gas refill bottles usually swap and go arrangements.	50	500	Deliveries are generally made weekly or fortnightly, or as required.
Class 2.1 flammable gases - such as acetylene / aerosols etc	MAPGAS for plumping supplies, and aerosol paints are the main items here. Butane refill / lighters.	50	500	Deliveries are generally made weekly or fortnightly, or as required.
Class 2.2 Exempt, hence no storage limits for argon, nitrogen or rare/inert gases - however must consider sub-classes also – hence need to cover compressed Oxygen	Generally Not applicable	0	NA	NA
Class 2.3 - No proposal to store 2.3 goods	Generally Not applicable	0	NA	NA
Class 3 – PG 1 ( BP < 35 o C ) includes MATERIALS WITH UN NO . 1993, and 1263	Generally Not applicable	0	NA	NA
Class 3 – PG II or III includes X55, methanol, kerosene, & turpentine)	Flammable Liquids such as Kerosene, Methylated Spirits. Solvent based Paints, Class 3 PG II or III	50	750 - 1000	Deliveries are generally made weekly or fortnightly, or as required.

Product Name/ Description	Typical Products	Bunnings Kingsgrove Proposed DG Vehicle Max Movements/ Annum	NSW DOP Threshold	Conclusion / Determination
Class 4 – Flammable solids	Matches and similar are classed as ADG Class 4 - Flammable solids.	12	200	Deliveries are generally made weekly or fortnightly, or as required.
Class 5.1 and 5.2 – Organic Peroxides	Pool Chlorine ( dry powder) or liquid.	50	500	Deliveries are generally made weekly or fortnightly, or as required.
Class 6 – Poisons, Biocides etc	Agricultural products, weedicides, herbicides, pesticides. Round Up and other brands	0		
Class 7 – Radioactive material	Generally Not applicable	0	NA	NA
Class 8 PG II includes mild caustic washes in drums	Acid solutions, Caustic Cleaners, cleaning products,	50	500	Deliveries are generally made weekly or fortnightly, or as required.
Class 9 - Miscellaneous	Waste oil or waste products	50	1000	Waste collections are weekly, however these are mainly putrescible wastes are not liquid wastes or waste oils.
Note : The bulk of the truck movements of chemicals are dedicated to Class C1 and C2 combustible oils – which are deemed non-hazardous by NSW DOP	Cooking oils / canola oils / olive oils motor oils are all examples of Class C1 and C2 combustible liquids.	50	NA	Deliveries are generally made weekly or fortnightly, or as required.
	<b>TOTAL Predicted Annual Dangerous Goods Delivery Movements</b>	<b>324</b>		