

# CHEMICAL USE AND STORAGE

## 1.1 CHEMICAL STORAGE

Chemical handling and storage procedures will be undertaken in accordance with the Applicable Material Safety Data Sheets (MSDS), good manufacturing practice and all relevant Australian Standards. Chemical handling, use and storage procedures will also be documented in a comprehensive Environment Management Plan which will be prepared for the site.

As an example, **Table 1** provides a list of chemicals anticipated to be used and stored at the processing plant. This is based on a similar processing plant operated by Baiada in Griffith, NSW which has approval to process up to 2.8 Million Birds / Week but has been updated to reflect the proposed operations. Storage Locations within the processing plant are shown on the attached plans.

**Table 1: Proposed Chemical Storage Volumes based on Hanwood Processing Plant**

SUBSTANCE	UN NUMBER	QUANTITY	SEPP 33 Threshold Quantities
N2 Gas (C2.2)	1977	10,000L	N/A
O2 Gas (C2.2)	1075	10,000L	N/A
CO2 Gas (C2.2)	1013	10,000L	N/A
Petroleum Gas Liquefied (C2.1)	1075	1,176L (0.6T) 1.176m3	16m <sup>3</sup> /10T
Petroleum Gas Liquefied (C2.1)	1075	3,000L (1.53T) 3.0m3	16m <sup>3</sup> /10T
Ferric Sulphate (C8 PGIII)	1760	15,000L (19.5T)	50T
Hypochlorite Solution (C8 PGIII)	1791	1,000L (1.2T)	50T
Hypochlorite Solution (C8 PGIII)	1791	1,000L (1.2T)	50T
Hypochlorite Solution (C8 PGIII)	1791	4,000L (6.0T)	50T
Hypochlorite Solution (C8 PGIII)	1791	1,000L (1.2T)	50T
Hypochlorite Solution (C8 PGIII)	1791	2,000L (2.4T)	50T
Hypochlorite Solution (C8 PGIII)	1791	400L (0.48T)	50T
Sodium Hypochlorite Solution (C8 PGIII)	1791	2,400L (2.88T)	50T
Chlorite Solution	1908	2,000L (2.56T)	25T

SUBSTANCE	UN NUMBER	QUANTITY	SEPP 33 Threshold Quantities
(C8 PGII)			
Sodium Hydroxide Solution (C8 PGII)	1824	2,000L (3.0T)	50T
Sodium Hydroxide Solution (C8 PGII)	1824	1,000L (1.5T)	25T
Sodium Hydroxide Solution (C8 PGII)	1824	400L (0.6T)	50T
Sodium Hydroxide Solution (C8 PGII)	1824	2,000L (3.0T)	25T
Ammonia Anhydrous (C2.3)	1005	3,000L (2.05T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T
Ammonia Anhydrous (C2.3)	1005	1,200L (0.82T)	5T

## 1.2 CHEMICAL TRANSPORTATION

Similarly, the screening thresholds for transport of dangerous goods are outlined in *Table 2: Transportation Screening Thresholds* of the *Applying SEPP33 Hazardous and Offensive Development Application Guidelines* (January 2011). **Table 2** demonstrates that the vehicle movements on site containing dangerous goods are well below the thresholds set out in SEPP33.

**Table 2: Transportation of each Dangerous Good Class Measured Against SEPP33 Thresholds**

CLASS	SUBSTANCE	UN NUMBER	VEHICLE MOVEMENTS PER ANNUM	TABLE 2 THRESHOLDS
2.1	Petroleum Gas Liquefied	UN1075	156	>500
2.3	Ammonia Anhydrous	UN1003	24	>100
8	Hypochlorite Solution	UN1791	234	>500
8	Sodium Hydroxide Solution/ Sodium Hydroxide	UN1824/ UN1823		

## 1.3 SEPARATION DISTANCES

The development site is located in a rural zone with very low density of residential dwellings. The nearest residential dwelling ‘as the crow flies’ is over 1km to the north of the site and the settlement (residential zoned area) is located along Marathon Street approximately 3.8km south east. These separation distances are considered to be extensive and capable of containing the consequences of any incident as a result of dangerous goods on site, from the nearby residential uses.

## 1.4 SEPP33 SCREENING

In accordance with the requirements of *State Environmental Planning Policy 33* (SEPP33), a screening of storage volumes of dangerous goods was undertaken. The volumes stored and SEPP33 Threshold quantities are also documented in **Table 1**. Based on the screening test, a Preliminary Hazard Analysis is not considered to be required for this Development Application of the following reasons:

- the quantity of dangerous goods stored on site does not exceed the amounts listed in the General Screen Threshold Quantities (Table 3 Applying SEPP33);
- the cumulative and peak vehicle movements do not exceed those listed in the Transportation Screening Thresholds (Table 2 Applying SEPP33);
- separation distances from the between the location of dangerous goods storage and residential development is greater than the distance of the consequences of a possible hazardous incident; and
- the technical and management safeguards available to mitigate hazards involving dangerous substances are considered to be sufficient to avoid significant risk to human health or life, property and the biophysical environment.

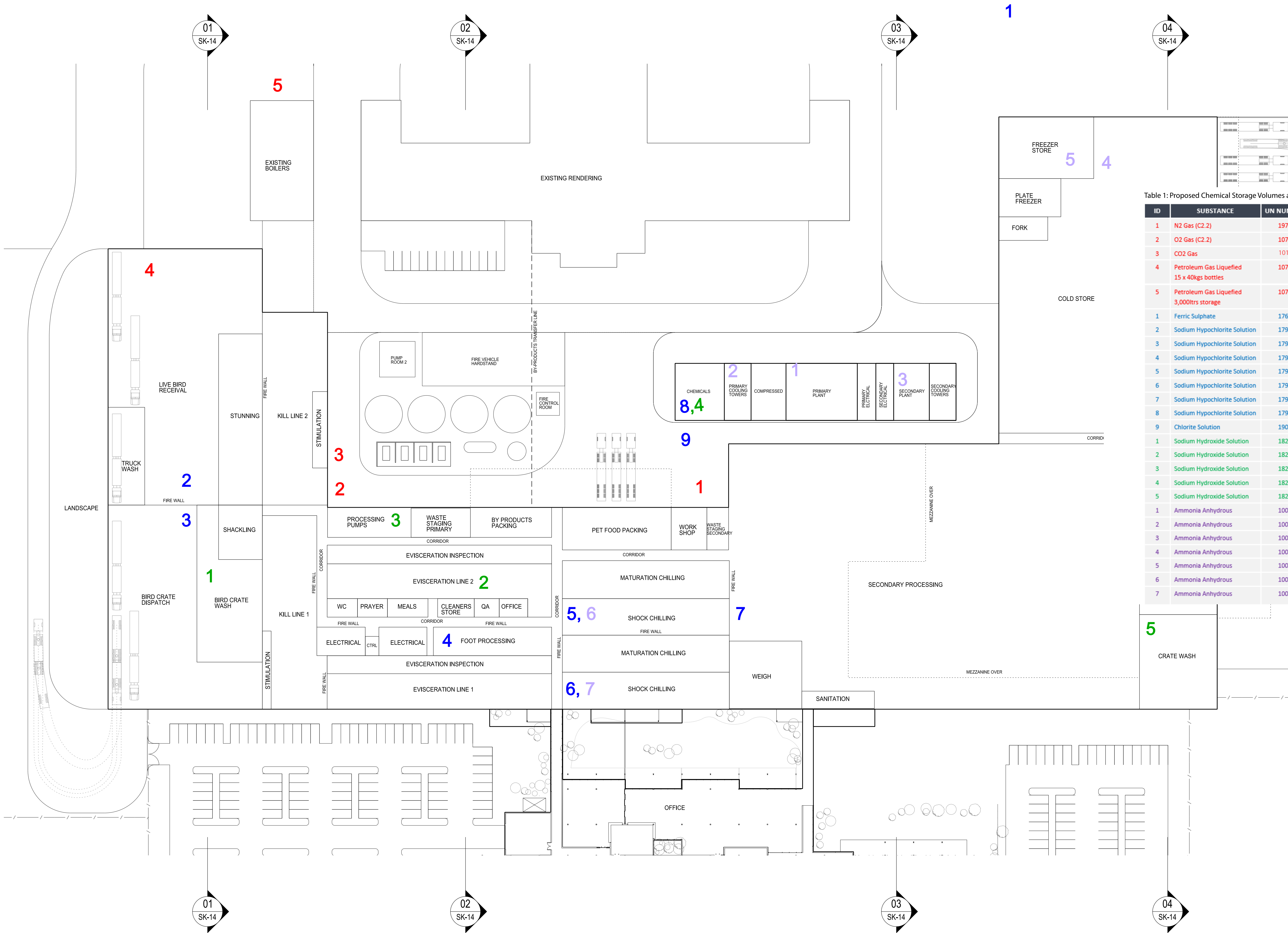


Table 1: Proposed Chemical Storage Volumes and Locations

ID	SUBSTANCE	UN NUMBER	QUANTITY	Quantities
1	N2 Gas (C2.2)	1977	10,000L	N/A
2	O2 Gas (C2.2)	1075	10,000L	N/A
3	CO2 Gas	1013	10,000L	N/A
4	Petroleum Gas Liquefied 15 x 40kgs bottles	1075	1,176L (0.6T) 1.176m3	16m³/10T
5	Petroleum Gas Liquefied 3,000ltrs storage	1075	3,000L (1.53T) 3.0m3	16m³/10T
1	Ferric Sulphate	1760	15,000L (19.5T)	50T
2	Sodium Hypochlorite Solution	1791	1,000L (1.2T)	50T
3	Sodium Hypochlorite Solution	1791	1,000L (1.2T)	50T
4	Sodium Hypochlorite Solution	1791	4,000L (6.0T)	50T
5	Sodium Hypochlorite Solution	1791	1,000L (1.2T)	50T
6	Sodium Hypochlorite Solution	1791	2,000L (2.4T)	50T
7	Sodium Hypochlorite Solution	1791	400L (0.48T)	50T
8	Sodium Hypochlorite Solution	1791	2,400L (2.88T)	50T
9	Chlorite Solution	1908	2,000L (2.56T)	25T
1	Sodium Hydroxide Solution	1824	2,000L (3.0T)	50T
2	Sodium Hydroxide Solution	1824	1,000L (1.5T)	25T
3	Sodium Hydroxide Solution	1824	400L (0.6T)	50T
4	Sodium Hydroxide Solution	1824	2,000L (3.0T)	25T
5	Sodium Hydroxide Solution	1824	1,000L (1.5T)	25T
1	Ammonia Anhydrous	1005	3,000L (2.05T)	5T
2	Ammonia Anhydrous	1005	1,200L (0.82T)	5T
3	Ammonia Anhydrous	1005	1,200L (0.82T)	5T
4	Ammonia Anhydrous	1005	1,200L (0.82T)	5T
5	Ammonia Anhydrous	1005	1,200L (0.82T)	5T
6	Ammonia Anhydrous	1005	1,200L (0.82T)	5T
7	Ammonia Anhydrous	1005	1,200L (0.82T)	5T