Report

State Environmental Planning Policy (Resilience and Hazards) - Screening Assessment

Coastwide Materials - Hillview Quarry

Prepared for:

Coastwide Materials Pty Ltd c/o ADW Johnson

Prepared by:

Advitech Pty Limited

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Client

Adam Crampton, Planning Manager, ADW Johnson Pty Limited

Email: adamc@adwjohnson.com.au, Phone: 02 4305, 4300 Mobile: 0413 804 112
5 Pioneer Avenue, Tuggerah NSW 2259

Author

Narelle Harvey, Environmental Scientist

Advitech Pty Limited, ABN: 29 003 433 458
7 Riverside Drive, Mayfield West NSW 2304 Australia (PO Box 207 Mayfield NSW 2304)
Email: narelle.harvey@advitech.com.au, Phone: 02 4924 5400

History

Date	Revision	Comments
22-02-2024	0	Final
12-04-2024	1	Final incorporating client comments

Endorsements

Prepared By:		**Narelle Harvey** Environmental Scientist BEnvSc&Mgmt	12-04-2024
Checked By:		**Tait Worthington** Process Engineer BEng(Chem), MIEAust	12-04-2024
Authorised for Release By:		**Craig Wellings** Manager – Environment B Sc, MEIANZ	12-04-2024

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Appendices

1. Introduction

Advitech Pty Limited (Advitech) was engaged by ADW Johnson Pty Limited (ADW Johnson) on behalf of Coastwide Materials Pty Ltd (Coastwide Materials) to prepare a *State Environmental Planning Policy (Resilience and Hazards) – Chapter 3: Hazardous and Offensive Development* (SEPP H&OD) screening assessment for the proposed construction and operation of a hard rock quarry in Booral, NSW. The subject site is located at Lot 62 DP 95029, Lot 63 DP 95029, Lot 1 DP 159902, Lot 64 DP 95030 and Lot 60 DP 1094397 – 67 Maytoms Lane, Booral.

This report provides a review of the current hazardous chemicals information, together with the latest design layouts against current SEPP H&OD requirements and other applicable legislation, regulations and guidelines.

It should be noted that this report was prepared by Advitech Pty Limited for Coastwide Materials Pty Ltd ('the customer') in accordance with the scope of work and specific requirements agreed between Advitech and the customer. This report was prepared with background information, terms of reference and assumptions agreed with the customer. The report is not intended for use by any other individual or organisation and as such, Advitech will not accept liability for use of the information contained in this report, other than that which was intended at the time of writing.

2. Background and Objectives

ADW Johnson, on behalf of Coastwide Materials, are seeking assistance to support an Environmental Impact Statement (EIS) submission for the establishment of a hard rock quarry (Hillview Quarry), located in Booral NSW. The site lies approximately 4.4 km to the southwest of Booral and 6.4 km northwest of Allworth. The proposed development is intended to process up to 1.5 million tonnes of hard rock per annum for up to 30 years. Hillview Quarry will be accessed via the existing Maytoms lane (off The Bucketts Way).

The subject site is located within an area classified as RU2 – Rural Landscape, per the Great Lakes Environmental Plan (DPE 2014). To the southeast of the development is the access road (Maytoms Lane) and The Bucketts Way.

ADW Johnson, on behalf of Coastwide Materials, have requested a SEPP H&OD screening assessment be undertaken to determine if the required separation distances to protected places are met, which ensure that the existing site does not cause undue risk or offence to the health and safety of people and property within the surrounding area.

3. References

The analyses in this report were based on the following Australian Standards, codes and/or design references:

1. NSW Government Department of Planning and Environment (DPE), December 2021 – *State Environmental Planning Policy (Resilience and Hazards) 2021*.
2. NSW Government Department of Planning and Environment (DPE), January 2011 – *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33*.
3. NSW Government Department of Planning and Environment (DPE), April 2014 - Land Zoning Map - Sheet LZN_005 (Great Lakes Environmental Plan 2014).
4. NSW Government – *Protection of the Environment Operations Act 1997 No 156* (POEO Act).
5. NSW Government – *Work Health and Safety Regulation 2017* March 2023.
6. National Transport Commission – *Australian Code for the Transport of Dangerous Goods by Road and Rail* (ADG Code) Edition 7.8 April 2023.
7. Safe Work Australia – *Classifying Hazardous Chemicals National Guide* (July 2020).

8. United Nations – *Globally Harmonized System of Classification and Labelling of Chemicals* (GHS) Seventh Revised Edition 2017
9. AS 1940:2017 – *The storage and handling of flammable and combustible liquids.*
10. AS 3780:2023 – *The storage and handling of corrosive substances.*
11. AS/NZS 4681:2000 – *The storage and handling of Class 9 (miscellaneous) dangerous goods and articles*.
12. Assorted Safety Data Sheets (SDSs) (as provided by ADW Johnson).

Note: Reference has been made to *Applying SEPP 33*, as of at the time of writing, no updated procedure has been put in place for *State Environmental Planning Policy (Resilience and Hazards) – Chapter 3: Hazardous and Offensive Developments*.

4. Design Basis and Methodology

4.1 General methodology

The methodology used in this assessment is as follows:

- Review the types and proposed quantities of Dangerous Goods (DGs) to be stored at the site;
- Compare the quantities of DGs against the threshold quantities listed in *Applying SEPP 33* (Ref. 2) to identify whether the storage location or quantity triggers SEPP H&OD;
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in *Applying SEPP 33*; and
- Report on the findings of the SEPP H&OD assessment.

4.2 Data extracted from "Hazardous and Offensive Development Application Guidelines - Applying SEPP 33"

Figure 1 below, extracted from "*Hazardous and Offensive Development Application Guidelines - Applying SEPP 33*" (Ref. 2) provides details on the application of Figures or Tables within the guidelines to determine the applied screening threshold for each class of DG. Figure 2 below (taken from the same guidelines) indicates the SEPP 33 general screening thresholds and Figure 3 below (also taken from the guidelines) indicates the transportation screening thresholds.

Class	Method to Use/Minimum Quantity
1.1	Use graph at Figure 5 if greater than 100 kg
1.2-1.3	Table 3
2.1 — pressurised (excluding LPG)	Figure 6 graph if greater than 100 kg
2.1 — liquefied (pressure) (excluding LPG)	Figure 7 graph if greater than 500 kg
LPG (above ground)	table 3
LPG (underground)	table 3
2.3	table 3
3PGI	Figure 8 graph if greater than 2 tonne
3PGII	Figure 9 graph if greater than 5 tonne
3PGIII	Figure 9 graph if greater than 5 tonne
4	table 3
5	table 3
6	table 3
7	table 3
8	table 3

Figure 1: Screening method to be used

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[1])	
	10 tonne or16 m^3	if stored above ground
	40 tonne or 64 m^3	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

Figure 2: General screening threshold quantities

	Vehicle Movements		Minimum quantity* per load (tonne)	
	Cumulative	Peak		
Class	Annual *or*	Weekly	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	

Figure 3: Transportation screening thresholds

5. Site Analysis

5.1 Location and zoning

The Proposed Development is located at 67 Maytoms Lane, Booral and sits within the Mid Coast Council. The Site is zoned RU2 – Rural Landscape and is entirely surrounded by RU2 zoned land.

Great Lakes Local Environmental Plan shows that industrial development is permissible in RU2- Rural Landscapes zones.

The surrounding properties are all rural properties and working mixed use farms, including poultry sheds and livestock. The township of Booral is located approximately 3.5 km to the North-East.

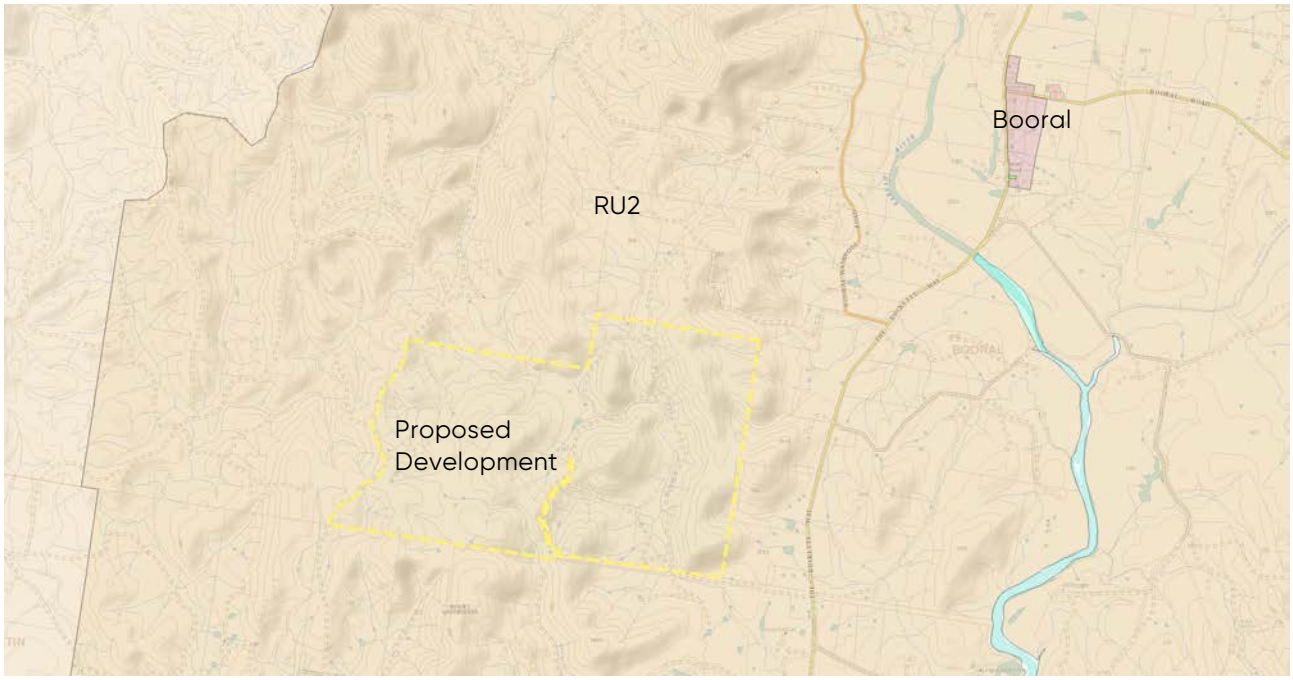

Figure 4: Site and surrounding land zoning

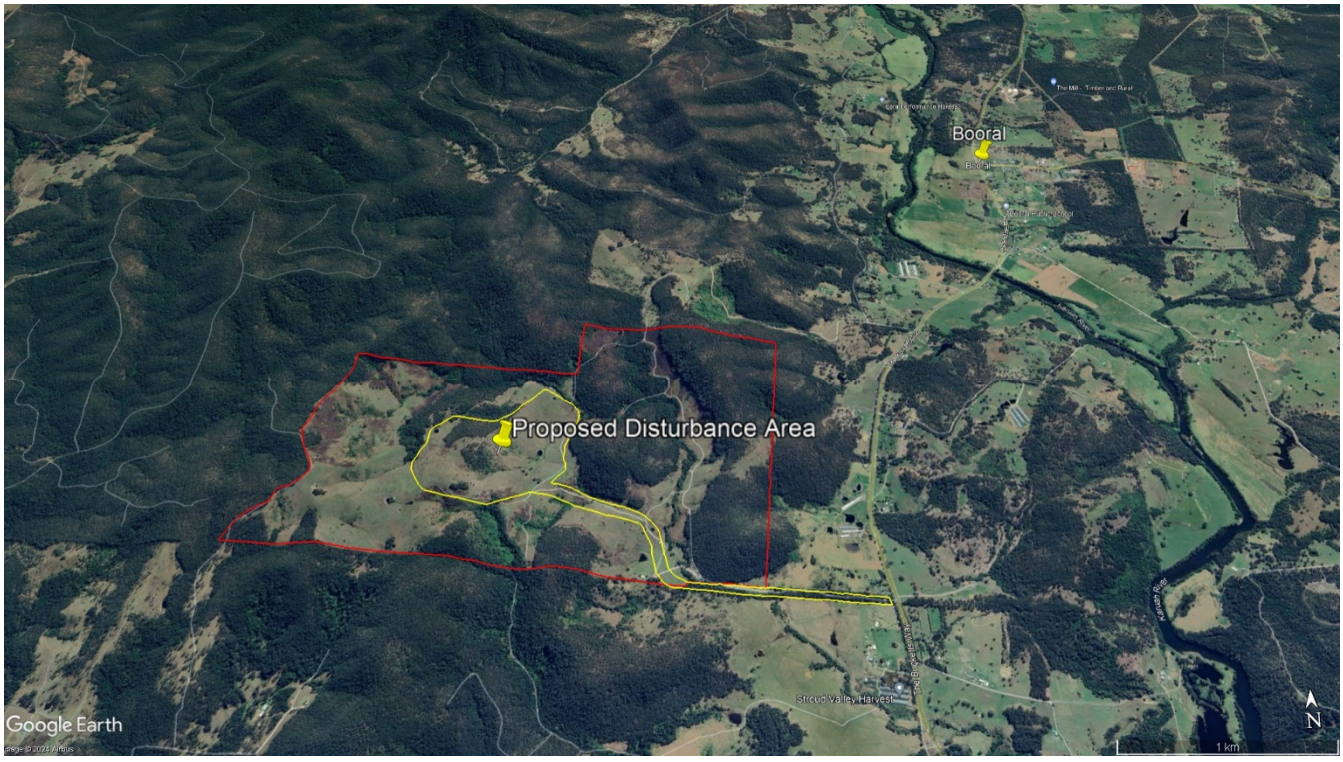

Figure 5: Site location

5.2 Assumptions

The following assumptions were used as the assessment basis:

- All materials classified as HCs and DGs are to be stored on site within their respective areas (i.e., flammables stored alongside flammables, corrosives with corrosives etc) and in accordance with applicable standards;
- There will be DGs stored within the Site, and the following levels have been assumed, based on standard quantities from similar operations;
- Supplemental materials may be stored within the Site (i.e., cleaning supplies, grease, oils, sealants and associated quarry products materials that may contain hazard statements, but are not listed under Schedule 11 of the Work Health and Safety Regulation or the Australian Dangerous Goods Code). For the purposes of this assessment, only materials with a DG classification have been presented;
- Vehicle movements used in the transport assessment have been based on averages from similar facilities; and
- Per discussions with ADW Johnson, explosives are to be brought in on a 'as needed basis' by external contractors. No amount of explosive material (DG Class 1) is to be stored on site. It has been assumed that the contractors are suitably licenced to handle and transport explosive materials. For all proposed facilities including transport or storage of DG Class 1 materials, the Department of Planning, Housing and Infrastructure should be contacted for advice.

5.3 Proposed Dangerous Goods Storage

A list of DGs and respective quantities to be stored during the construction and operation of the proposed development is presented in Table 1 below.

Table 1: Maximum quantities of Materials Classified as DG to be stored within the Site

Storage Location	DG Class / Packing Group (PG)	Description	Maximum Quantity to be stored
Hazardous Goods Container	2.1	Flammable gases	50 kg
	9 PG III	Miscellaneous	5 kg
Above ground tank	3 PG III	Flammable liquids, Category 1	33,000 L / 29 t
Hazardous Goods Container		Flammable liquids	10 kg
Mobile Plant	8 PG III	Corrosive substances	26 kg
Contractors Vehicles	9 PG III	Miscellaneous	10 kg

6. Preliminary Risk Screening

The objective of *State Environmental Planning Policy (Resilience and Hazards) – Chapter 3: Hazardous and Offensive Development* (SEPP H&OD) is to link the permissibility of a proposal to its safety and pollution control performance. It aims to ensure that the merits of the proposal are properly assessed in relation to offsite risk and offence before being determined. SEPP H&OD applies to any proposal which falls under the definition of 'potentially hazardous industry'.

SEPP H&OD defines 'potentially hazardous industry' as:

> *A development for the purposes of an industry which, if the development were to operate without employing any measures to reduce or minimise its impact in the locality or on the existing or likely future development of other land, would pose a significant risk in relation to the locality:*
>
> - *To human health, life or property; or*
> - *To the biophysical environment.*
>
> *And includes a hazardous industry and a hazardous storage establishment.*

If a development falls within the definition of a 'potentially hazardous industry', then the proponent must prepare, or cause to be prepared, a Preliminary Hazardous Analysis (PHA). SEPP H&OD provides the definition of a 'potentially hazardous industry' as a site which holds quantities of dangerous goods in excess of the screening threshold levels prescribed within the NSW Department of Planning, Housing and Infrastructure document '*Applying SEPP 33*' (January 2011). Note, at the time of writing, there have been no changes to encapsulate *Applying SEPP 33* under the new SEPP arrangements (i.e., SEPP Resilience and Hazards). As such, *Applying SEPP 33* has been referred to.

6.1 Storage Quantity Screening

The maximum quantities of DGs to be stored within the proposed development are presented alongside relevant screening thresholds in Table 2.

Table 2: Quantities stored and SEPP 33 thresholds for Subject Site

Storage location	DG Class / PG[1]	Description	Maximum quantity to be stored	Screening Method from *Applying SEPP 33*[2]	Screening threshold from *Applying SEPP 33*[2]	Measured distance to nearest receptors[3]	Is SEPP H&OD exceeded? (Quantity)
Hazardous Goods Container	2.1	Flammable gases	50 kg	Quantity	16,000 L OR 10 t	-	No
	9 PG III	Miscellaneous	5 kg	N/A[4]	-	-	-
Above ground Diesel storage tank	3 PG III	Flammable Liquids, Category 4[5]	33,000 L / 29 t	Distance[6]	Other uses – 6.5 m Sensitive uses – 9.5 m	Other – 1,500 m Sensitive – 735 m	No
Hazardous Goods Container		Flammable liquids	10 kg	Distance[6]	Other uses – 6.5 m Sensitive uses – 9.5 m	Other – 1,500 m Sensitive – 735 m	No
Mobile Plant	8 PG III	Corrosive substances	26 kg	Quantity	< 5 t	-	No
Contractors Vehicles	9 PG III	Miscellaneous	10 kg	N/A[4]	-	-	-

Notes:

[1]: If dangerous goods (DG) of a given class, but varying packing groups (PG) are stored in the same general area, the total of that class is present as the most hazardous packing group. I.e., if a 3 PG I is stored with a 3 PG II or III, they will all be treated as the most hazardous PG (PG I in this case).

[2]: Reference has been made to *Applying SEPP 33*, as at the time of writing, no updated procedure has been put in place for SEPP H&OD.

[3]: Measured distance only applies to Flammable Liquids. The term 'sensitive' refers to residential or other more sensitive land uses. 'Other' applies to all other land uses (e.g., commercial, or industrial).

[4]: DG class 9 is excluded from risk screening as per Applying SEPP 33 Table 3.

[5]: If combustible liquids of class C1 are present on site and are stored in a separate bund or within a storage area where there are no flammable materials stored they are not considered to be potentially hazardous. If, however, they are stored with other flammable liquids, that is, class 3 PG I, II or III, then they are to be treated as class 3 PG III, because under these circumstances they may contribute fuel to a fire.

[6]: Measured distance is based on provided site plans detailing the location of the Stores (workshop/office) (see Appendix A). Distances have been measured from the nearest storage area wall to sensitive and other receptors, for sensitive receptors the nearest residential building was used and other, the nearest poultry shed was used.

6.2 Transport Assessment

A development may also be considered 'potentially hazardous' if the transport screening thresholds are exceeded for vehicular movements to and from the Site.

Table 2 from *Applying SEPP 33* has been extracted and reproduced in Figure 3 in section 4.2.

All DGs to be stored on site are speculative, as to are the vehicle movements below. These have been based on averages from similar industrial facilities and are presented in Table 3.

Table 3: Transport Screening Thresholds for Proposed Development (adapted from *Applying SEPP 33*)

Class	Description	Vehicle movements (for the development)		Vehicle Movements (SEPP thresholds)		Is SEPP H&OD exceeded? (Transport)
		Cumulative Annual	Peak Weekly	Cumulative Annual	Peak Weekly	
2.1	Flammable gases	52	1	> 500	> 30	No
3 PG III	Flammable liquids	52	1	> 750	> 45	No
8 PG III	Corrosive substances	52	1	> 500	> 30	No
9 PGIII	Miscellaneous	52	1	> 1 000	> 60	No

As explosives will be transported to site for use (but not stored), the Department of Planning, Housing and Infrastructure should be consulted for advice in regard to the transportation of explosive materials. Advice will likely depend upon the outcomes and findings of additional specialist studies (i.e., noise, air quality and emissions).

As presented in Table 3, the cumulative annual and peak weekly movements of vehicles delivering DGs to the site do not exceed the transport screening thresholds. As such, the development can be classified as not 'potentially hazardous' from a transport screening perspective.

However, if the locations, volumes, or substances change from what has been assessed in this report, then a review of this assessment would be required to determine if the changes have probable cause for the proposed development to be considered 'potentially hazardous'.

6.3 Potentially Offensive Industry

SEPP H&OD would also apply where a development is considered a 'potentially offensive industry', which is defined as follows:

> ***Potentially Offensive Industry*** *means a development for the purposes of industry which, if the development were to operate without employing any measures (including, for example, isolation for existing or likely future development on other land) or reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including, for example, noise) in a manner which would have significant adverse impact in the locality or on the existing or likely future development on other land and includes an offensive industry and an offensive storage establishment.*

In deciding if a proposal is a 'potentially offensive industry', it is necessary to consider whether, in the absences of safeguards, the proposal would emit a polluting discharge which would cause a significant level of offence.

Generally, a development may be classified as 'potentially offensive' where either:

- A licence is required under pollution control legislation; or
- Where no such licence is required, the proposal has potential to cause offence having regard to the sensitivity of the surrounding environment.

The proposed development is located off The Bucketts Way, in Booral (Figure 4), within an area classified as RU2 – Rural Landscape. The Site is surrounded by properties that are all classified as RU2 – Rural Landscape. As the development is listed under the list of activities of the Protection of the Environment Operations (POEO) Act, an Environmental Protection Licence (EPL) is required. As a licence is required, the development can be considered 'potentially offensive' and further specialist studies (e.g., noise, odour, air emissions etc) may be required to determine the effects on sensitive receptors within proximity. Advitech understands that a new EPL will be sought for the proposed Hillview Quarry.

The proposed development is also set to utilise explosive material (DG Class 1) during the operation of the quarry. Current understanding is that the explosive materials will be transported to site on an 'as needed' basis, with no storage of materials at the site. It has also been assumed that the contractors to be used to transport explosive materials are suitably licenced for the handling and transport of DG Class 1 materials. As the proposed development includes explosive materials, the Department of Planning, Housing and Infrastructure should be contacted for advice. Advitech have also been engaged to undertake specialist studies in noise, air quality and emissions, which may all likely elements of the recommendations from the Department of Planning, Housing and Infrastructure.

7. Conclusions and Recommendations

7.1 Conclusions

Advitech was engaged by ADW Johnson, on behalf of Coastwide Materials, to prepare a SEPP Hazardous and Offensive Development screening assessment for the proposed construction and operation of a hard rock quarry (Hillview Quarry) in Booral, NSW.

Based on the supplied information reviewed, it is Advitech's professional opinion that the proposed development was found to not be a 'potentially hazardous industry'. As such, further addition of a PHA is not required. The proposed development was found to be a 'potentially offensive industry' under Schedule 1 of the POEO Act, which requires a licence under pollution control legislation. If a development cannot obtain the necessary pollution control licences or other permits, then it may be classified as an 'offensive industry' and may not be permissible in most zonings. Further specialist studies may be required to determine impact to the locality.

This report has been prepared on the basis of information supplied by ADW Johnson and the assumptions made in Section 5.2. The report relies on the HCs and DGs materials and quantities list to be stored on site, which is documented in Table 1, along with site specific drawings, presented in Appendix A.

If any details surrounding the Proposed Development, including location of DG Stores, DGs to be stored or their proposed amounts are exceeded, a review will need to be undertaken and a potential PHA may be required.

7.2 Recommendations

The following recommendations have been made generally for the proposed development:

- As explosives will be transported to site for use (but not stored) the Department of Planning, Housing and Infrastructure should be consulted for advice. This advice may also include information included within the specialist advice reports (i.e., noise, air quality and emissions) also being prepared by Advitech.
- The DGs shall be stored in a manner which complies with the applicable storage standards and regulations (i.e. AS/NZS 3833:2007 - The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers, AS 1940-2017 - The storage and handling of flammable and combustible liquids, AS 3780:2023 – Storage and handling of corrosive

substances, NOHSC:2017(2001) - National Code of Practice for the Storage and Handling of Workplace Dangerous Goods).

- The documentation required by the Work Health and Safety Regulation 2017, applicable to the site DG storage(s), shall be prepared for the Site prior to occupation.
- Review of the DG storage design against applicable Australian Standards to ensure that the risks posed have been managed 'So Far As Is Reasonably Practicable' (SFARP).
- Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1:2022 - Explosive atmospheres Classification of areas - Explosive gas atmospheres, shall be prepared to ensure that an ignition source does not enter a hazardous atmosphere as required by the WHS Regulations.

Appendix A

Proposed Concept Plans and Storage Locations

Plan of:	**Hillview Quarry Assistance - Disturbance 2022**	**Location:**	Off Maytoms Lane, Booral, NSW	**Source:**	Client provided aerial photo, November 2014. Google Earth surruond. NSW C&S - Clip & Ship cadastral and drainage. Haul and proposed disturbance provided by ADW. Disturbance amended 2022 by VGT.	**Plan By:**	SK
Figure:	**F1**	**Council:**	Great Lakes Shire Council	**Survey:**	Photomapping 2014	**Project Manager:**	GT
Version/ Date:	V4 12/08/2022	**Tenure:**	N/A	**Projection:**	GDA2020 EPSG:7856		
Our Ref:	1195_HV_2022 Disturbance_Q003_V4_F1	**Client:**	Tricon Mining Equipment Pty Ltd	**Contour Interval:**	N/A		

N

0 0.25 0.5 km

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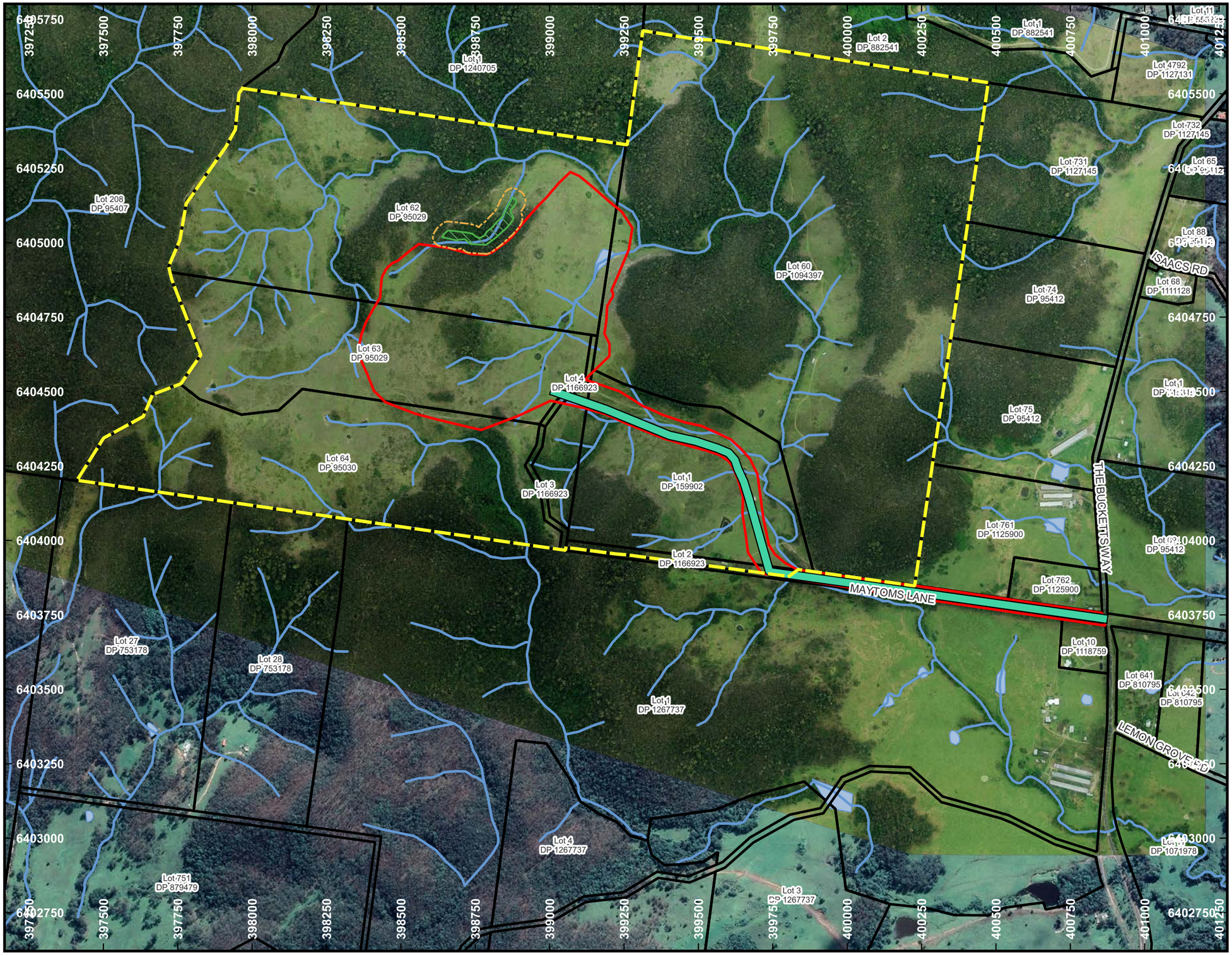

Legend

- Lot
- Site Boundary
- Proposed Disturbance Area
- Proposed Private Haul Road
- PCT_1541_Veg_Zone_1_polygon
- PCT_1541_30m_Buffer
- Drainage line (NSWC&S)
- Dam (NSW C&S)

Plan of:	**Hillview Quarry SEARs - Conceptual Processing Area Layout**	**Location:**	Off Maytoms Lane, Booral, NSW	**Source:**	Client provided aerial and existing survey November 2014. NSW Clip & Ship cadastral.	**Plan By:**	SK/TO
Figure:	**THREE-B**	**Council:**	Great Lakes Shire Council	**Survey:**	Photomapping November 2014	**Project Manager:**	GT
Version/ Date:	V1 3/03/2023	**Tenure:**	N/A	**Projection:**	GDA2020 EPSG:7856		
Our Ref:	1195_HV_SEARs_Q10_V0_F3B	**Client:**	Tricon Mining Equipment Pty Ltd	**Contour Interval:**	5m		

N

0 20 40 60 80 100 m

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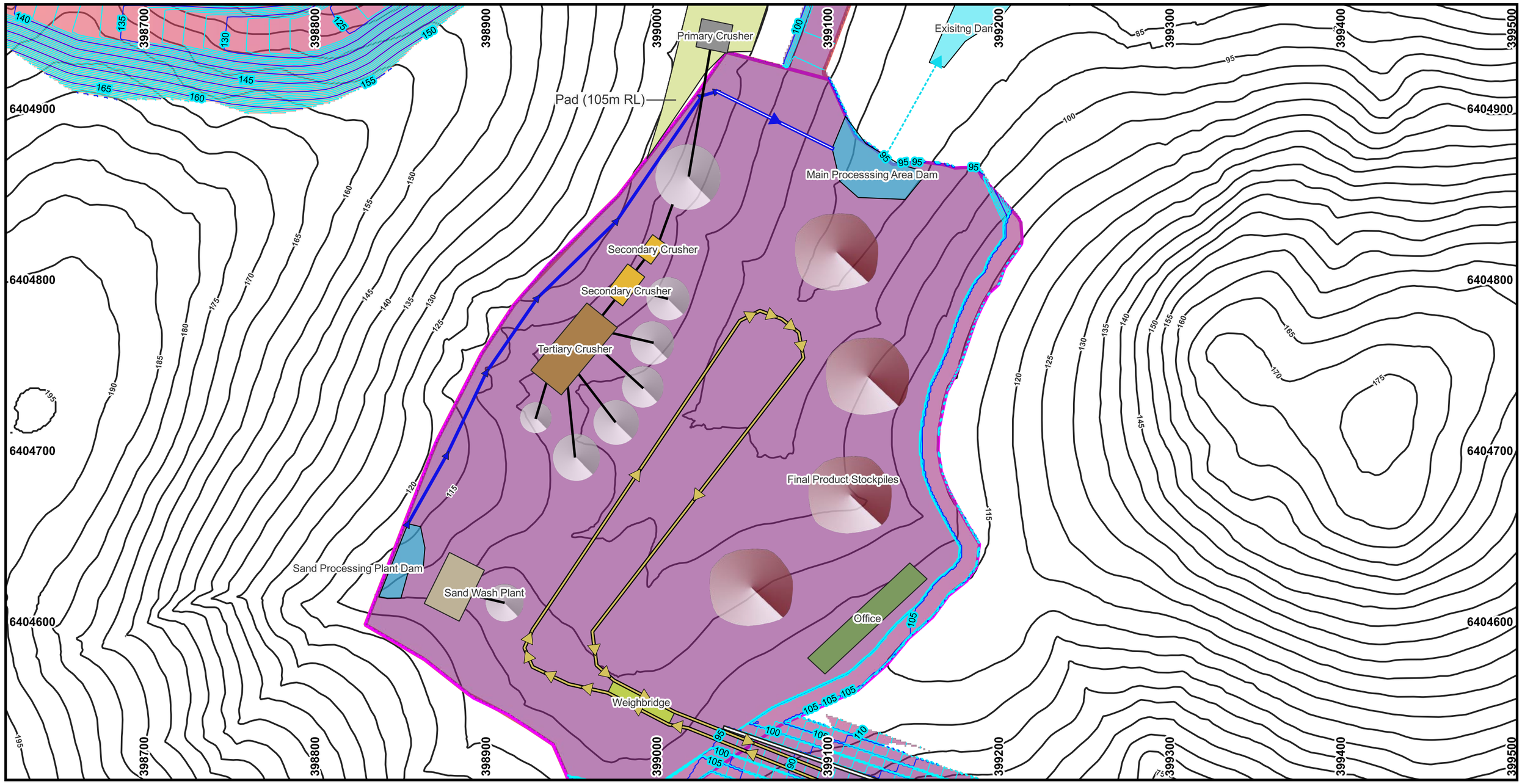

Legend

- Site Boundary
- Lot Boundary (Cadastral)
- Run of Mine Pad (105mRL)

Existing Contours

- 5m

Offices

- Office

Weighbridge

- Weighbridge Traffic Flow
- Weighbridge

Plant

- Primary Crusher
- Secondary Crushers
- Tertiary Crushers
- Sand Wash Plant

- Stockpiles
- Final Product Stockpiles (DGB, DGS)
- Conveyors

Processs Area Water Management Features

- Clean Water Flow
- Underground Pipe
- Drain
- Sediment Dams for Processing Area

Elevation Model

- 204.207mRL
- 23.857mRL

Development Contours

- 5m
- 1m