

# PHASE 1 PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

# 103-109 LAYCOCK STREET, CRANEBROOK NSW 2749

Prepared For: Rocco Alvaro

REP-19-8500-A

DATE: 13<sup>th</sup> September 2019



#### **CONTROLLED DOCUMENT**

## **DISTRIBUTION & REVISION REGISTER**

<u>DISTRIBUTION LIST</u>		
Copy No.	Custodian	Location
1 Original	Daniel Mathew	Envirotech Pty. Ltd (Filed)
2 Soft Copy (PDF, emailed)	Rocco Alvaro	info@alvaroarchitects.com.au

Note: This register identifies the current custodians of controlled copies of the subject document.

DOCUMENT HISTORY		
Document No.	Revision No.	<u>Issue Date</u>
REP-19-8500	Α	13/09/2019

AUTHOR	TECHNICAL REVIEWER AND CO AUTHOR				
Charbel Bahi Graduate Civil Engineer B.Eng. (Civil)	Con Kariotoglou Team Leader (Environmental and Hazmat Divisions)				

# COPYRIGHT © 2019 ENVIROTECH PTY. LTD.

The report is protected by copyright law and may only be reproduced, in electronic or hard copy format, if it copied and distributed in full with the prior written permission of Envirotech Pty. Ltd.



### **EXECUTIVE SUMMARY**

Envirotech Pty. Ltd. was engaged by Rocco Alvaro to conduct a Phase 1 Environmental Site Assessment at 103 – 109 Laycock Street, Cranebrook NSW 2749 (hereafter referred to as the site). The investigation will accompany a development application for the construction of a proposed Seniors Housing Retirement Home within the Preliminary Site Assessment report from Envirotech (internal reference: *REP-19-8500-A*).

The total area of investigation is approximately 8,019m². A site inspection was carried out on Wednesday 11<sup>th</sup> September 2019 by Envirotech consultant Charbel Bahi, which involved a visual assessment of the accessible areas of the site and surrounding areas. Details of the findings are presented within the body of this report, as well as an assessment of significance with regards to the findings of the investigation.

This report was completed in accordance with the *Guidelines for Consultants Reporting on Contaminated Sites, NSW EPA, September 2000.* 

Based on the data and evidence collected during the site inspection and site history review, the findings of the Environmental Site Assessment are as follows:

- 1. On the 11<sup>th</sup> September 2019, a site inspection was conducted by Envirotech consultant Charbel Bahi. Field work was carried out in accordance with the methodology described in AS 4482.1 2005 and the NEPM (2013). At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.
- 2. During the investigation, the entire site was investigated, including the proposed area of development which includes a proposed Seniors Housing Development pending development application for potential areas of concern, including the:
  - a. Footprint of proposed Seniors Housing development;
  - b. Footprint of the proposed roadways through the development
- 3. At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.
- 4. There is a risk that contaminants associated with the underlying soils onsite have the potential to be comprised of unknown fill material and this could include: Asbestos, Heavy Metals, Hydrocarbons & OC/OP Pesticides;
- 5. There is also a risk that contaminants associated with currently existing residential houses and sheds are of an age that potentially comprised of hazardous building materials and this could include: Asbestos & heavy Metals;
- There is also a risk that historical site use of demolished past structures onsite, have the
  potential for latent hazardous contaminants within ground surfaces: Asbestos & Heavy
  Metals;
- 7. The site was first developed before 1991;
- 8. It is recommended that the buildings are inspected by a licensed HAZMAT building inspector prior to any demolition works;
- 9. Subject to outcome of the above items, it is recommended that a Detailed Environmental Site Assessment be conducted within the footprint of the proposed development including the proposed new driveway areas.
- 10. It is considered that the site is or can be remediated suitable to the proposed land use.



# **TABLE OF CONTENTS**

EXEC	UTIVE S	UMMARY	3					
1.	INTRO	DUCTION	5					
1.	1	Background						
1.		Objectives						
1.		Scope of Works						
1.	4	Legislative Requirements						
1.	5	Context of report						
2.	SITE I	DENTIFICATION						
3.	PROP	OSED DEVELOPMENT	8					
4.	SITE D	DESCRIPTION	9					
4.	1	Site Inspection	c					
4.		Surrounding Land Use						
4.	_	Topography						
4.	_	Geology and Soils						
4.	-	Surface Water Hydrology						
4.	_	Hydrogeology						
4.	-	Acid Sulfate Soils						
5.	SITE F	RECORDS	10					
5.	1	List of NSW Contaminated Sites - Notified to the EPA	10					
5.	2	Contaminated Land Records of Notice	10					
5.	3	Former Gasworks	10					
5.	4	National Waste Management Site Database	10					
5.	5	Defense PFAS Investigation and Management Program	10					
5.	6	Airservices Australia National PFAS Management Program	10					
5.	7	Defence 3 Year Regional Contamination Investigation Program						
5.	8	EPA Other Site with Contamination Issues	10					
5.	9	Licensed Activities under the POEO Act 1997	1					
5.	10	Delicensed Activities still regulated by EPA						
5.	11	Formed Licensed Activities under the POEO Act 1997, now revoked or surrendered	11					
6.	Conc	EPTUAL SITE MODEL (CSM)	12					
6.	1	Potential Areas of Concern	12					
7.	SITE H	listory	13					
7	1	Aerial Photographs	4.					
7.		<b>5</b> 1						
7.	_	Information Gaps						
8.	RESU	TS	15					
8.	1.	Site Observations	15					
8.	2	Potential Risks to Onsite Receptors	15					
8.	3	Receptors and Pathways	15					
8.	4	Recommendations	16					
9	Conc	LUSIONS AND RECOMMENDATIONS	17					
10	10 LIMITATIONS STATEMENT							
11		ENCES AND LEGISLATION						
		A: Proposed Plans						
		B: SITE PHOTOS						
		B: SITE PHOTOS	21					



# 1. INTRODUCTION

### 1.1 Background

Envirotech Pty. Ltd. was engaged by Rocco Alvaro to conduct a Preliminary Environmental Site Assessment at 103-109 Laycock Street, Cranebrook, NSW 2749 (hereafter referred to as the site). The objective of the investigation is to assess the potential for site contamination, based on historical and current land use practices.

The total area of investigation is approximately 8,019m². A site inspection was carried out on Wednesday 11<sup>th</sup> September 2019 which involved a visual assessment of the accessible areas of the site and surrounding areas. Details of the findings are presented within the body of this report, as well as an assessment of significance with regards to the findings of the investigation.

This report was completed in accordance with the *Guidelines for Consultants Reporting on Contaminated Sites, NSW EPA, September 2000.* 

# 1.2 Objectives

The objectives of this ESA were to:

- 1. Identify past and present potentially contaminating activities;
- 2. Identify potential contaminants of concern;
- Provide a preliminary assessment of the condition of the site and potential for contamination; and
- 4. Assess the need for further investigation

# 1.3 Scope of Works

- 1. A desktop search comprising;
  - a. Cadastre & Topography
  - b. Aerial Imagery
  - c. EPA Contaminated Land
  - d. EPA Records of Notice
  - e. National Waste
  - f. Groundwater Bores
  - g. Geology & Soils
  - h. Planning Zones
- 2. A review of past and current site uses;
- 3. A review of past and current adjacent site uses;
- 4. An integrity assessment;
- 5. A site inspection; and
- 6. Reporting in accordance with the associated legislations and guidelines.

# 1.4 Legislative Requirements

The legislative framework for the report is based on guidelines that have been set out by the NSW Environmental Protection Agency (EPA) formerly the Office of Environment and Heritage (OEH) in the form of the following Acts/Regulations:

- 1. Protection of the Environment Operations Act (1997);
- 2. Protection of the Environment Operations Regulation (2008);
- 3. Contaminated Land Management Act (1998).



In addition, the following guidelines and technical documents have been reviewed and applied where applicable:

- 1. Guidelines for the NSW Site Auditor Scheme (NSW DEC, 2006).
- 2. Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA, 2000).
- 3. *Guidelines on the Investigation Levels for Soil and Groundwater*, National Environmental Protection Measure 1999, 2013 Amendment (NEPC, 2013).
- 4. Australian Standard AS 4482.1 *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*
- 5. Australian Standard AS 4482.2 *Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances.*
- 6. Sampling Design Guidelines (NSW EPA, 1995).
- 7. Waste Classification Guidelines Part 1: Classifying Waste (NSW DECCW, 2014).
- 8. Guidelines for Implementing the Protection of the Environment Operations (Underground
- 9. Petroleum Storage Systems) Regulation 2008 (NSW DECCW, 2009).
- 10. Guidelines for the Assessment and Management of Groundwater Contamination (NSW DEC, 2007).

# 1.5 Context of report

This report is to be read in its entirety and should not be review in individual section to provide any level of information independently. Each section of the report relates to the rest of the document and as such is to be read in conjunction, including its appendices and attachments.



# 2. SITE IDENTIFICATION

The study site of the entire area is 103 – 109 Laycock Street, Cranebrook NSW 2749 Revesby. The site can be identified as rectangular shaped allotments located north-west of Laycock Street. Figure 2 shows an aerial photograph of the site and the surrounding land.

Table 1: Site Identification.

Street Address	103 – 109 Laycock Street, Cranebrook NSW 2749
Lot and DP Number	Lot 23 (DP700376)
Approx. Site Area	8,019 m²
Local Government Area	Penrith City Council
Zoning	R2: low Density Residential
LGA Legislation	Penrith Local Environmental Plan 2010



Figure 1: Site location map (NSW Spatial Information Exchange)

# 3. PROPOSED DEVELOPMENT

The objective of the 'Phase 1, Preliminary Environmental Site Assessment' is to assess the potential for site contamination, based on historical and current land use practices for the Proposed Development Seniors Housing onsite.



Figure 2: Aerial photograph of the site and surrounding land (<a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a>)

# 4. SITE DESCRIPTION

#### 4.1 Site Inspection

On the 11<sup>th</sup> September 2019, a site inspection was conducted by Envirotech consultant Charbel Bahi. Field work was carried out in accordance with the methodology described in AS 4482.1 – 2005 and the NEPM (2013). At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.

### 4.2 Surrounding Land Use

The site is located within a residential setting and bordered by:

- Low density residential properties to the north south, east and west, and
- Nepean River to the west.

# 4.3 Topography

Low rolling to steep low hills. Local relief 50–120 m, slopes 5–20%. Convex narrow (20–300 m) ridges and hillcrests grade into moderately inclined side-slopes with narrow concave drainage lines. Moderately inclined slopes of 10–15% are the dominant landform elements.

# 4.4 Geology and Soils

This soil landscape is underlain by Wianamatta Group Ashfield Shale and Bringelly Shale formations. The Ashfield Shale consists of laminite and dark grey shale. Bringelly Shale consists of shale, calcareous claystone, and laminite. Between these two shale members is the Minchinbury Sandstone consisting of fine to medium-grained lithic quartz sandstone.

Shallow dark podzolic soils or massive earthy clays on crests, moderately deep red podzolic soils on upper slopes; moderately deep yellow podzolic soils and prairie soils on lower slopes and drainage lines

### 4.5 Surface Water Hydrology

No groundwater or distinct overland flow paths were noted onsite during the investigation. Surface water is expected to infiltrate into exposed soils onsite and paved areas around the buildings are expected to sheet westward into exposed soils at the western portion of the property towards Nepean River.

# 4.6 Hydrogeology

A search of the Department of Primary Industries, Office of Water search tool Continuous Water Monitoring Network revealed two (2) bores within a 500m radius of the site.

GW No.	Work Type	Owner Type	Authorised Purpose	Final Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Dist	Directi on from site
GW004794	Bore	Private	Irrigation	7.30	Fair	-	-	390m	West
GW104717	Bore	Private	Test Bore	45.00	Good	-	2.190	429m	West



#### 4.7 Acid Sulfate Soils

The NSW Planning Portal shows the site does not lie within the boundary of any potentially Acid Sulphate containing Soils.

# 5. SITE RECORDS

#### 5.1 List of NSW Contaminated Sites - Notified to the EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
1055	7-Eleven (former Mobil) Service Station	212-222 Andrews Road	Penrith	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	978m	South West

#### 5.2 Contaminated Land Records of Notice

Records from the NSW EPA Contaminated Land list within the dataset buffer:

No records

### 5.3 Former Gasworks

Former Gasworks within the dataset buffer:

No records

#### 5.4 National Waste Management Site Database

No records

# 5.5 Defense PFAS Investigation and Management Program

No records

# 5.6 Airservices Australia National PFAS Management Program

No records

# 5.7 Defence 3 Year Regional Contamination Investigation Program

No records

# 5.8 EPA Other Site with Contamination Issues

No records



#### 5.9 Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6357	O-I Operations (Australia) PTY LTD	ACI Glass Packageing	130-172 Andrew Road	Penrith	Ceramic waste generation	Premise match	827m	South
6357	O-I Operations (Australia) PTY LTD	ACI Glass Packageing	130-172 Andrew Road	Penrith	Glass production (container)	Premise match	827m	South
6357	O-I Operations (Australia) PTY LTD	ACI Glass Packageing	130-172 Andrew Road	Penrith	Recovery of general waste	Premise match	827m	South
2038	Glass Recovery Services PTY LTD		126 Andrews Road, Penrith NSW 2740		Recovery of general waste; Waste storage – other types of waste	Premise match	943m	South

# 5.10 Delicensed Activities still regulated by EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

No records

# 5.11 Formed Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

License No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
1335	Hanson Construction Materials PTY LTD	Mc Carthys Lane, Cranebroook NSW 2749	Surrendered	24/05/200 0	Concrete works	Premise match	631m	North West
2049	Hanson Construction Materials PTY LTD	Mc Carthys Lane, Cranebroook NSW 2749	Surrendered	06/06/200 0	Crushing, grinding or separating; Waste storage, transfer, separating or processing	Premise match	631m	North West
4653	Luhrmann Environment Management PTY LTD	Waterways throughout NSW	Surrendered	06/06/200 0	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	-
4838	Robert Orchard	Various waterways throughout NSW – Sydney NSW 2000	Surrendered	07/09/200 0	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	-
6630	Sydney Weed & Pest Management PTY LTD	Waterways throughout NSW – Prospect NSW 2148	Surrendered	09/11/200 0	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	-
12106	VIP Steel Packaging PTY LTD	182-184 Andrews Road, Penrith NSW 2750	Surrendered	29/04/200 4	Container reconditioning; Non-thermal treatment of hazardous and other waste	Premise match	858m	South West
10945	Cummins South Pacific PTY LTD	7 Andrews Road, Penrith NSW 2750	Surrendered	19/06/2000	Hazardous, industrial or group A waste generation of storage	Premise match	949m	South West



# 6. CONCEPTUAL SITE MODEL (CSM)

#### 6.1 Potential Areas of Concern

- The underlying soils onsite have the potential to be comprised of fill material; and
- Existing residential dwelling
- Existing Driveway

Table 3 identifies the main Areas of Environmental Concern (AECs), and their associated Contaminants of Concern (COCs), using the information gathered through this assessment and qualitative judgement based on consultant experience.

**Table 3:** Areas of Environmental Concern (\*Derived from AS 4482.1-2005 and consultant experience).

AEC	Potentially Contaminating	Contaminants of	Likelihood of
ALC	Activity	Concern	Contamination**
The underlying soils including existing driveway onsite have the potential to be comprised of unknown fill material.	Underlying soils onsite comprised of potentially hazardous fill materials.	<ul><li>Heavy Metals;</li><li>Hydrocarbons;</li><li>OC/ OP Pesticides</li><li>Asbestos</li></ul>	Possible
Currently existing residential house to be potentially comprised of hazardous building materials	Potentially hazardous building materials.	<ul><li>Asbestos;</li><li>Heavy Metals;</li></ul>	Possible



# 7. SITE HISTORY

# 7.1 Aerial Photographs

A review of historical aerial photographs (Appendix B) was undertaken. The results of which are summarized in Table 3.

**Table 3:** Findings of the historical photograph review

Year	Description
1956	Low resolution Black and white aerial photo
	Vacant lot with exposed grasslands
	Surrounding area appears to be rural
	Forest vegetation to the north
	Dam to the north-east
	<ul> <li>Potential market garden on the property and surround property to the north</li> </ul>
	Market garden to the west
1961	Low resolution Black and white aerial photo
	Subject lot still appears to be vacant
	The market garden on the property, the north and west still present
	No significant changes to surrounding areas
1965	Low resolution Black and white aerial photo
	Removal of trees on the subject lot
	Sealed access road north of the property
	No significant changes to surrounding areas
1970	Low resolution Black and white aerial photo
	New dwelling to the north-west
	<ul> <li>A man-made dam to the north-east along with a small shed adjacent to it</li> </ul>
	Some earthworks to the east
1982	Moderate resolution Coloured aerial photo
	<ul> <li>Surrounding area appears to be low density residential to the east, south-east</li> </ul>
	<ul> <li>Surrounding dams to the north-east have been filled</li> </ul>
	Sealed road from the north leading into the property
1991	Moderate resolution Coloured aerial photo
	<ul> <li>Residential dwelling and dirt driveway has been constructed on the subject lot</li> </ul>
	Removal of some forest vegetation to the north
	<ul> <li>Residential dwellings surround the subject lot to the north, east and west</li> </ul>
	<ul> <li>Surrounding area appears increasingly populated with residential dwellings</li> </ul>
	Sealed roads to the east
2002	High resolution Coloured aerial photo
	Surrounding area to the east appears highly populated with residential dwellings
	<ul> <li>Trees along the east and south boundary of the lot and around the southern portion of the property</li> </ul>
2009	High resolution Coloured aerial photo
	A driveway has been constructed on site
	Multiple dams to the west have been constructed



# 7.2 Information Gaps

A site history has been established using the various sources as outlined above. However, the following information gaps have been identified:

- 1. Inferences have been drawn based on 'point in time' aerial photographs;
- 2. No information pertaining to the site pre-1956 was viewed;
- 3. Historical business directories were matched to named roads and not the exact premises and are therefore approximate location.

Regarding the information available, it is considered that the quality of the information is consistent the industry standard and that the information is of high integrity with respect to the historical use of the site overall.



# 8. RESULTS

#### 8.1. Site Observations

At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.

# 8.2 Potential Risks to Onsite Receptors

It is considered that there is a risk that contaminants associated with the fill onsite, these contaminants include:

- Heavy Metals;
- Hydrocarbons;
- OC/ OP Pesticides
- Asbestos

# 8.3 Receptors and Pathways

#### 8.3.1 Human Health

Human exposure to the potential contaminants identified is currently considered Low as:

- The site is privately owned;
- The site cannot be publicly accessed; and
- The buildings appear to be in good condition

This risk would increase too *High* for any personnel involved in building demolition works or surface excavations without appropriate safe work methods and personal protective equipment.

# 8.3.3 Potential for Migration of Contaminants

The potential for contaminants to migrate is currently considered *Low* as the existing soils are capped by grass vegetation throughout the entire site. There is also the potential for migration of contaminates through direct contact (Heavy Metals) and inhaling dust (Asbestos).

# 8.3.2 Sensitive Receptors

Sensitive receptors would include current and future residents occupying the site. The closest sensitive environmental receptor is Nepean River 2km to the west of the site and Cranebrook High School 1km east of the site.

# 8.3.3 Potential for Migration of Contaminants

The potential for contaminants to migrate is currently considered Low.



#### 8.4 Recommendations

All buildings and structures on site are to be inspected by licensed building inspectors for the presence of any hazardous building materials (HAZMAT) PRIOR TO any demolition works. Recommendations provided within that HAZMAT report must be implemented;

If hazardous materials are encountered:

- a. SafeWork NSW licensed contractors are commissioned to safely remove the hazardous building materials from the site;
- During asbestos removal, signs reading 'Danger Asbestos Removal in Progress' measuring a minimum 400 mm be erected in clearly visible positions near the removal works. 'How to Manage and Control Asbestos in the Workplace' by SafeWork Australia provides examples;
- c. All removal works must comply with the requirements of SafeWork NSW;
- d. Soil must be stripped from the footprint of any existing or former asbestos structures out to a lateral extent of no less than 1 m and to a minimum depth of 100 mm. The remaining soil surface must appear visibly clean;
- Hazardous building materials and asbestos containing soils are to be safely disposed at a
  facility licensed to receive such waste with receipts retained for proof of safe and appropriate
  disposal;
- f. All hazardous containing material removalists should wear appropriate personal protective equipment (PPE). 'How to Manage and Control Asbestos in the Workplace' by SafeWork Australia provides a list of appropriate PPE;
- g. Respiratory Protective Equipment (RPE) should comply with AS/NZS 1716-2003 Respiratory Protective Devices and be selected, used and maintained in accordance with AS/NZS 1715-1994 Selection, Use and Maintenance of Respiratory Protective Devices;
- h. An asbestos clearance must be provided by the approved contractors.



# 9 CONCLUSIONS AND RECOMMENDATIONS

Based on the data and evidence collected during the site inspection and site history review, the findings of the Environmental Site Assessment are as follows:

- 1. On the 11<sup>th</sup> September 2019, a site inspection was conducted by Envirotech consultant Charbel Bahi. Field work was carried out in accordance with the methodology described in AS 4482.1 2005 and the NEPM (2013). At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.
- 2. During the investigation, the entire site was investigated, including the proposed area of development which includes a proposed Seniors Housing Development pending development application for potential areas of concern, including the:
  - Footprint of proposed Seniors Housing development;
  - o Footprint of the proposed roadways through the development
- 3. At the time of inspection, an existing residential dwelling was present on site. The front and rear of the property contained managed grass areas with medium to large sized over hanging trees around the boundary of the property.
- 4. There is a risk that contaminants associated with the underlying soils onsite have the potential to be comprised of unknown fill material and this could include: Asbestos, Heavy Metals, Hydrocarbons & OC/OP Pesticides;
- 5. There is also a risk that contaminants associated with currently existing residential houses and sheds are of an age that potentially comprised of hazardous building materials and this could include: Asbestos & heavy Metals;
- 6. There is also a risk that historical site use of demolished past structures onsite, have the potential for latent hazardous contaminants within ground surfaces: Asbestos & Heavy Metals;
- 7. The site was first developed before 1991;
- 8. It is recommended that the buildings are inspected by a licensed HAZMAT building inspector prior to any demolition works;
- 9. Subject to outcome of the above items, it is recommended that a Detailed Environmental Site Assessment be conducted within the footprint of the proposed development including the proposed new driveway areas.
- 10. It is considered that the site is or can be remediated suitable to the proposed land use.



# **10 LIMITATIONS STATEMENT**

Envirotech Pty. Ltd. Pty. Ltd. has undertaken the following report in accordance with the scope of works set out between Envirotech Pty. Ltd. and the client. Envirotech Pty. Ltd. derived the data in this report primarily from the site and soil assessment conducted on the date of site inspection. The impacts of future events may require future investigation of the site and subsequent data analysis, together with a re-evaluation of the conclusions and recommendations of this report.

In preparing this report, Envirotech Pty. Ltd has relied upon, and assumed accurate, certain site information provided by the client and other persons. Except as otherwise stated in the report, we have not attempted to verify the accuracy or completeness of any such information. Envirotech Pty. Ltd. accepts no liability or responsibility whatsoever for or in respect to any use or reliance upon this report by any third party.

The information contained within this report have been prepared exclusively for the client. Envirotech have prepared the report to address the risk associated with scale of the works. The report has been prepared with a degree of care and skill ordinarily exercised in similar investigations by reputable members of the environmental industry in Australia. No other warranty, expressed or implied, is made or intended. This report is to be read in its entirety including attachments and appendices and should not read in individual sections.

A third party should not rely upon the information prior to making an assessment that the scope of work conducted meets their specific needs. Envirotech cannot be held liable for third party reliance on this document.

Envirotech's professional opinions are based upon its professional judgment, experience, training and results from analytical data. In some cases, further testing and analysis may be required, thus producing different results and/or opinions. Envirotech Pty Ltd has limited its investigation to the scope agreed upon with its client.



# 11 REFERENCES AND LEGISLATION

- Guidelines for the NSW Site Auditor Scheme (NSW DEC, 2006).
- Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA, 2000).
- Guidelines on the Investigation Levels for Soil and Groundwater, National Environmental Protection Measure 1999, 2013 Amendment (NEPC, 2013).
- Australian Standard AS 4482.1 Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.
- Australian Standard AS 4482.2 Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances.
- Sampling Design Guidelines (NSW EPA, 1995).
- Waste Classification Guidelines Part 1: Classifying Waste (NSW DECCW, 2014).
- Guidelines for Implementing the Protection of the Environment Operations (Underground
- Petroleum Storage Systems) Regulation 2008 (NSW DECCW, 2009).
- Guidelines for the Assessment and Management of Groundwater Contamination (NSW DEC, 2007).
- NSW Spatial Information Exchange (<a href="http://maps.six.nsw.gov.au/">http://maps.six.nsw.gov.au/</a>)



**APPENDIX A: PROPOSED PLANS** 



#### **GENERAL NOTES:**

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS
- ALL DEMOLITION WORK TO BE CARRIED OUT IN ACCORDANCE WITH AS
- SILT SEDIMENT CONTROL MEASURES TO BE IN PLACE PRIOR EXCAVATION OR

PEDESTRIAN ACCESS, INCLUDING DISABLED AND PRAM ACCESS DURING ROAD WORK TO BE MAINTAINED AS PER AS 17423. 'PART 3 - TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS'

BUILDER SHALL MAKE GOOD ALL DISTURBED AREAS ADJACENT TO THE WORKS ON COUNCILS ROAD. FOOTPATH ARE TO BE RESTORED TO THE SATISFACTION OF THE PRINCIPAL CERTIFYING AUTHORITY

ALL CONCRETE FOOTINGS, FLOOR SLABS AND TIMBER ROOF FRAMING TO STRUCTURAL ENGINEERS DETAILS.

THE REFLECTIVITY INDEX OF GLASS USED IN THE EXTERNAL FACADE OF THE

ONGOING WASTE FROM THE PROPOSED DEVELOPMENT IS TO BE ADDED TO THE EXISTING WASTE COLLECTION SYSTEM CURRENTLY IN USE BY THE EXISTING DEVELOPMENT ON SITE

SAFETY GLASS SHALL BE USED IN EVERY GLASS DOOR OR PANEL ENCLOSING

ALL BATHROOM AND WC WINDOWS SHALL BE FITTED AND MAINTAINED WITH

# BCA COMPLIANCE:

SECTION A GENERAL PROVISIONS
PART A3 CLASSIFICATION OF BUILDINGS AND STRUCTURES

ONE OR MORE BUILDINGS WHICH IN ASSOCIATION CONSTITUTE—

(A) CLASS 1A - A SINGLE DWELLING BEING-

(I) A DETACHED HOUSE; OR

(II) ONE OF A GROUP OF TWO OR MORE ATTACHED DWELLINGS, EACH BEING A BUILDING, SEPARATED BY A FIRE-RESISTING WALL, INCLUDING A ROW HOUSE TERRACE HOUSE, TOWN HOUSE OR VILLA UNIT; OR

# SECTION B STRUCTURE

PART B1 STRUCTURAL PROVISIONS - SEE ENGINEERS PLANS

# \*SECTION C FIRE RESISTANCE

- PART C1 FIRE RESISTANCE AND STABILITY
- -C1.1 TYPE OF CONSTRUCTION REQUIRED

  TYPE C CONSTRUCTION FOR 1 STOREY CLASS 6 BUILDING
- -C1.12 NON-COMBUSTIBLE MATERIALS
  THE FOLLOWING MATERIALS, THOUGH COMBUSTIBLE OR CONTAINING
- COMBUSTIBLE FIBRES, MAY BE USED WHEREVER A NON-COMBUSTIBLE MATERIAL IS REQUIRED:
  - (A) PLASTERBOARD.
  - (B) PERFORATED GYPSUM LATH WITH A NORMAL PAPER FINISH.
  - (C) FIBROUS-PLASTER SHEET.
- (D) FIBRE-REINFORCED CEMENT SHEETING
- (E) PRE-FINISHED METAL SHEETING HAVING A COMBUSTIBLE SURFACE FINISH NOT EXCEEDING 1 MM THICKNESS AND WHERE THE SPREAD-OF-FLAME INDEX OF THE PRODUCT IS NOT GREATER
  - (F) BONDED LAMINATED MATERIALS WHERE-
  - (I) EACH LAMINATE IS NON-COMBUSTIBLE: AND
- (II) EACH ADHESIVE LAYER DOES NOT EXCEED 1 MM IN THICKNESS;
- (III) THE TOTAL THICKNESS OF THE ADHESIVE LAYERS DOES NOT
- (IV) THE SPREAD-OF-FLAME INDEX AND THE SMOKE-DEVELOPED INDEX OF THE LAMINATED MATERIAL AS A WHOLE BOSE YOU
- EXCEED 0 AND 3 RESPECTIVELY 3.7.1.3 EXTERNAL WALLS OF CLASS 1 BUILDINGS
- AN EXTERNAL WALL OF A CLASS 1 BUILDING, AND ANY OPENINGS IN
- MUST COMPLY WITH 3.7.1.5 IF THE WALL IS LESS
- (A) 900MM FROM THE ALLOTMENT BOUNDARY OTHER THAN THE BOUNDARY ADJOINING A ROAD ALIGNMENT OR OTHER PUBLIC SPACE,

- (B) 1.8M FROM ANOTHER BUILDING ON THE SAME ALLOTMENT OTHER THAN AN APPURTENANT CLASS 10 BUILDING OR A DETACHED PART OF THE SAME CLASS 1 3.7.1.4 MEASUREMENT OF DISTANCES

  (A) THE DISTANCE FROM ANY POINT ON A EXTERNAL WALL OF A BUILDING TO AN
- BUILDING IS THE DISTANCE TO THAT POINT MEASURED ALONG A LINE AT RIGHT BOUNDARY OR EXTERNAL WALL OF THE OTHER BUILDING WHICH INTERSECTS THAT POINT
- IN A CERTAIN MANNER, ONLY THAT PART OF THE WALL (INCLUDING ANY WITHIN THE SPECIFIED DISTANCE NEED BE CONSTRUCTED IN
- 3.7.1.5 CONSTRUCTION OF EXTERNAL WALLS (A) EXTERNAL WALLS (INCLUDING GABLES) REQUIRED TO BE FIRE RESISTING (REFERRED TO IN 3.7.1.3 OR 3.7.1.6) MUST EXTEND TO THE UNDERSIDE OF A NON COMBUSTIBLE ROOF COVERING OR NON COMBUSTIBLE EAVES LINING
- AND MUST: (1) HAVE AN FRL OF NOT LESS THAN 60/60/60 WHEN TESTED FROM OUTSIDE, OR
- (2) BE OF MASONRY VENEER CONSTRUCTION IN WHICH THE EXTERNAL MASONRY VENEER IS NOT LESS THAN 90MM THICK, OR (3) BE OF MASONRY CONSTRUCTION NOT LESS THAN 90MM THICK.
- (B) OPENINGS IN EXTERNAL WALLS REQUIRED TO BE FIRE RESITING
  (REFERRED TO IN 3.7.1.3 OR 3.7.1.6) MUST BE PROTECTED BY-(1) NON-OPERABLE FIRE WINDOWS OR OTHER CONSTRUCTION WITH F NOT LESS THAN -/60/-, OR
- (2) SELE-CLOSING SOLID CORE DOORS NOT LESS THAN 35MM THICK. CONDUITS AND THE LIKE NEED NOT COMPLY WITH (B)
- (D) CONCESSIONS FOR NON-HABITABLE ROOM WINDOWS CONDUITS AND DESPITE THE REQUIREMENTS IN (B), IN A NON HABITABLE ROOM, A
- WINDOW THAT FACES THE BOUNDARY OF AN ADJOINING ALLOTMENT
  MAY BE NOT LESS THAN 600MM FROM THAT BOUNDARY OR, WHERE THE FACES ANOTHER BUILDING ON THE SAME ALLOTMENT, NOT LESS THAN
- 1200MM FROM THAT BUILDING PROVIDED THAT-(1) IN A BATHROOM, LAUNDRY OR TOILET, THE OPENING HAS AN AREA OF NOT MORE THAN 1.2SQM, OR
- (2) IN A ROOM OTHER THAN REFERRED TO IN (1), OPENING HAS AN EA OF NOT MORE THAN 0.54SQM AND(A) THE WINDOW IS STEEL FRAMED, THERE ARE NO OPENING SASHES
- D IT IS GLAZED IN WIRED GLASS, OR

  (B) THE OPENING IS ENCLOSED WITH TRANSLUCENT HALLOW GLASS
- 3.7.1.8 SEPARATING WALLS
  (A) A WALL THAT SEPERATES CLASS 1 DWELLINGS, OR SEPARATES A CLASS 1 BUILDING FROM A CLASS 10A BUILDING WHICH IS NOT APPURTENANT TO THAT CLASS 1 BUILDING MUST HAVE AN FRL OF NOT LESS THAN 60/60/60
  - (1) COMMENCE AT THE FOOTINGS OR GROUND SLAB
  - (2) EXTEND-(A) IF THE BUILDING HAS A NON COMBUSTIBLE ROOF COVERING, TO THE UNDERSIDE OF THE ROOF COVERING, OR

    (B) IF THE BUILDING HAS A COMBUSTIBLE ROOF COVERING, TO NOT LESS
- THAT 450MM ABOVE THE ROOF COVERING.

  SPECIFICATION C1.10: FIRE HAZARD PROPERTIESMATERIALS USED IN THE BUILDING HAVING FLAMMABILITY, SMOKE
- DEVELOPED AND SPREAD OF FLAME INDICES AS SET OUT IN SPECIFICATION C1.10.
- PART 3.7.2 : SMOKE ALARMS
   AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO BE PROVIDED IN ACCORDANCE WITH PART 3.7.2.2 REQUIREMENTS FORSMOKE ALARMS (A) SMOKE ALARMS MUST BE INSTALLED IN-
- (1) ANY STOREY CONTAINING BEDROOMS
- PART 3.8: HEALTH AND AMENITY
   WET AREAS WITHIN THE PROPOSED BUILDING TO COMPLY WITH THE
- REQUIREMENTS OF PART 3.8.1 (Wet areas). PART 3.8.5 : VENTILATION 3.8.5.0 PERFORMANCE REQUIREMENT P2.4.5 IS SATISFIED FOR A
- MECHANICAL VENTILATION SYSTEM IF IT IS INSTALLED IN ACCORDANCE WITH AS 1668.2
- 3.8.5.1 APPLICATION 3.8.5.2 VENTILATION REQUIREMENT PART 3.8.6 SOUND INSULATION
- 3.8.6.1 APPLICATION COMPLIANCE WITH THIS PART SATISFIES PERFORMANCE REQUIREMENT
- P2.4.6 FOR SOUND INSULATION,
  3.8.6.2 SOUND INSULATION REQUIREMENTS
  (A) TO PROVIDE INSULATION FROM AIRBORNE AND IMPACT SOUND, A
- SEPARATING WALL BETWEEN 2 OR MORE
- CLASS 1 BUILDING MUST(1) ACHEIVE THE WEIGHTED SOUND REDUCTION INDEX WITH SPECTRUM ADAPTION TERM (RW+CTR) AND DISCONTINUOUS CONSTRUCTION REQUIREMENTS, AS REQUIRED BY TABLE 3.8.6.1, AND

- (2) BE INSTALLED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS
- (B) FOR THE PURPOSE OF THIS PART, THE RW + CTR MUST BE ACCORDANCE WITH AS/NZS 1276.2 OR ISO717.1.
- USING RESULTS FROM LABORATORY MEASUREMENTS.
- PART 3.9 : SAFE MOVEMENT AND ACESS
   THE TREADS AND RISERS OF THE PROPOSED STAIRS ARE TO COMPLY WITH PART 3.9.1.2 ( GENERAL REQUIREMENTS ).
- SECTION E ( SERVICES AND EQUIPMENT)

  BUILDING TO COMPLY WITH THE CATEGORY 1 FIRE SAFETY PROVISIONS.

  THIS TO BE

  ACHEIVED BY MEETING THOSE PERFORMANCE REQUIREMENTS

  THIS TO BE ACHEIVED BY MEETING THOSE PERFORMANCE REQUIREMENTS

  THIS DOCK ADDITIONAL TO THE RUILIDING CLASSIFICATION, FROM THE OF THE BCA APPLICABLE TO THE BUILDING CLASSIFICATION, FROM THE EP1.3 (FIRE HYDRANTS), EP1.4 (SPRINKLER SYSTEMS), EP1.6(FIRE CONTROL
- EP2.1 (AUTOMATIC SMOKE DETECTION AND WARNING), EP2.2 (EVACUATION ROUTES), EP3.2 ( FIRE FIGHTING LIFT) P2.3.2( FIRE DETECTION PART F1: FIRE FIGHTING EQUIPMENT
- SEE FINAL ESSENTIAL SERVICES PLAN FOR FIRE FIGHTING EQUIPMENT WHICH IS TO COMPLY WITH E1.3 (FIRE HYDRANTS), E1.4 (HOSE REELS), E1.6 (PORTABLE
- E1.7 (FIRE AND SMOKE ALARMS).
- SPECIFICATION E1.17 (FIRE DETECTION AND ALARM SYSTEM) AND E1.9

  E PRECAUTIONS DURING CONSTRUCTION).
- SECTION F (HEALTH AND AMENITY)
  PART FI: DAMP AND WEATHERPROOFING
- STORMWATER DRAINAGE MUST COMPLY WITH AS/NZS 3500.3.2. -ROOF COVERING TO COMPLY WITH F1.5. -SARKING MUST COMPLY WITH AS/NZS 4200 PARTS 1 AND 2 -WATER PROOFING OF WET AREAS IN BUILDINGS, TO COMPLY WITH F1.7. -DAMP PROOFING OF FLOORS ON GROUND, TO COMPLY WITH F1.10.
- PROVISION OF FLOOR WASTES, TO COMPLY WITH F1.11. PART F4: LIGHT AND VENTILATION--VENTILATION OF BASEMENT CARPARK TO COMPLY WITH F4.11 (PUBLIC
- -OTHER PORTION OF BUILDING NOT RECEIVING NATURAL VENTILATION TO THE STANDARDS SET OUT IN PART F4, SHALL BE PROVIDED WITH A SYSTEM OF MECHANICAL VENTILATION COMPLYING WITH F4.5 (VENTILATION OF ROOMS).

# STANDARDS AUSTRALIA

COMPLIANCE
THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH BUT NOT LIMITED TO THE FOLLOWING AUSTRALIAN STANDARDS.

- AS2293 EMERGENCY EVACUATION LIGHTING IN BUILDINGS AS3700 MASONRY STRUCTURES AS1670 FIRE DETECTION, WARNING, CONTROL AND INTERCOM INSTALLATION AND COMMISSIONING SYSTEMS-SYSTEM DESIGN, AS1668 THE USE OF MECHANICAL VENTILATION AND AIR CONDITIONING IN
- BUILDINGS AS1428 GENERAL REQUIREMENTS FOR ACCESS - NEW BUILDING WORK AS2293 EMERGENCY ESCAPE LIGHTING AND EXIT SIGNS FOR BUILDINGS
  AS3500 PLUMBING AND DRAINAGE: PART 3 STORMWATER DRAINAGE ALUMINUM STRUCTURES

  COMPONENTS FOR THE PROTECTION OF OPENINGS IN FIRE ASNZS1905
- RESISTANT WALLS AS2050 INSTALLATION OF ROOF TILES
  AS2047 WINDOWS IN BUILDINGS - SELECTION AND INSTALLATION
- COMPOSITE STRUCTURES AS2870 RESIDENTIAL SLABS AND FOOTINGS CONSTRUCTION
  AS1684 RESIDENTIAL TIMBER-FRAMED CONSTRUCTION AS3700 MASONRY STRUCTURES
- AS1668 THE USE OF MECHANICAL VENTILATION AND AIR CONDITIONING IN BUILDINGS
  AS2444 PORTABLE FIRE EXTINGUISHERS AND FIRE BLANKETS-SELECTION
- AND LOCATION COMPONENTS FOR THE PROTECTION OF OPENINGS IN
- ASNZS1905 FIRE-RESISTANT WALLS
  GLASS IN BUILDINGS- SELECTION AND INSTALLATION
- ACOUSTICS- RECOMMENDED DESIGN SOUND LEVELS AND REVERBERATION TIMES FOR BUILDING INTERIORS
  AS3660.1 TERMITE MANAGEMENT-NEW BUILDING WORK AS3740 WATERPROOFING OF WET AREAS IN RESIDENTIAL BUILDING. AS1926.1 SAFETY BARRIERS FOR SWIMMING POOLS
  AS1926.2 LOCATION OF SAFETY BARRIERS FOR SWIMMING POOLS
- -PROVIDE SIGNAL MASTER TV ANTENNA -PROVIDE FIXED OUTDOOR CLOTHES DRYER
  -ALL WALL FIXTURES TO BE INSTALLED ARE TO BE RATED AAA
- -ANY NEW HOT WATER SYSTEM IS TO ACHIEVE A MINIMUM 4 STARS -ALL EXTERNAL TILES ARE TO BE SLIP RESISTANT

UNIT NO.	GROUND FLOOR (m²)	ROOF AREA (m²)	GARAGE (m²)	P.O.S. (m <sup>2</sup> )	NO. BEDS	PARKING SPACES
1	129.2	210.2	23.3	96.6	3	2
2	127.1	197.5	23.3	100.1	3	2
3	127.1	197.5	23.3	132.5	3	2
4	127.1	197.5	23.3	129.8	3	2
5	127.1	197.5	23.3	127.1	3	2
6	127.1	197.5	23.3	124.4	3	2
7	127.1	197.5	23.3	121.9	3	2
8	127.1	197.5	23.3	199.7	3	2
9	127.1	197.5	23.3	197.1	3	2
10	127.1	197.5	23.3	122	3	2
11	127.1	197.5	23.3	122	3	2
12	127.1	197.5	23.3	122	3	2
13	127.1	197.5	23.3	122	3	2
14	127.1	197.5	23.3	122	3	2
15	127.1	197.5	23.3	91.7	3	2
16	129.2	210.2	23.3	85.8	3	2
TOTALS	2037.8	3185.4	372.8	2016.7	48	32

\ AREA SCHEDULE OF UNITS

Proposed Seniors Housing & Housing for People with a Disability 103-109 Laycock Street, Cranebrook NSW 2749 - LOT 23 DP700376

DESIGN FACTS		
SITE AREA		7974m²
NO. OF DWELLINGS		16
CONTROL	SEPP HSPD 2004 (	COMPLIANCE
	PROPOSED	REQUIRED
FSR	0.26:1	0.50:1
LANDSCAPED AREA	43%	30%
DEEP SOIL ZONE	38%	15%
SOLAR ACCESS	MIN 70%	70%
PRIVATE OPEN SPACE	MIN 85m²	15m²

30.11.20 DA ISSUE 09.12.20 AMENDED PLANS FOR DA SUBMISSION

DRAWING SCHEDULE

RESIDENT PARKING SPACES

MAX. BUILDING HEIGHT

TOTAL ROOF AREA

REV DATE DESCRIPTION

01 (C) 02 S 03 S	SITE ANALYSIS & DEMOLITION PLAN CONTEXT MAP SITE PLAN SITE PLAN - ROOF	1:250 NTS 1:250	01 00 01
02 9	SITE PLAN	1:250	
)3 9			01
	SITE PLAN - ROOF		
		1:250	01
01 5	SITE SECTIONS & DRIVEWAY SECTION	1:250	00
02 9	SITE ELEVATIONS	1:250	00
03 5	SITE INTERNAL ELEVATIONS	1:250	00
04 9	SITE INTERNAL ELEVATIONS	1:250	00
01 A	AREA SCHEDULE	1:250	01
02 E	DEMOLITION PLAN	1:250	01
03 (	CUT & FILL DIAGRAM	1:250	01
01 \	WINDOW SCHEDULE - UNITS 01-10	NTS	00
02 \	WINDOW SCHEDULE - UNITS 11-16	NTS	00
03 H	HEIGHT LIMIT DIAGRAM	NTS	00
01 9	SHADOW DIAGRAM - 22 JUNE 9AM	1:250	01
02 9	SHADOW DIAGRAM - 22 JUNE 12PM	1:250	01
03 9	SHADOW DIAGRAM - 22 JUNE 3PM	1:250	01
04 9	SOLAR ACCESS DIAGRAM	1:1000	01
01 7	TYP. FLOOR PLANS - UNITS 01 & 16	1:100	00
02 T	TYP. SECTIONS & ELEVATIONS - UNITS 01 & 16	1:100	00
03 1	TYP. FLOOR PLANS - UNITS 02-15	1:100	00
04 T	TYP. SECTIONS & ELEVATIONS - UNITS 02-15	1:100	00
05 F	PEDESTRIAN CROSSING PLAN	1:250	01
UB101 S	STRATA SUBDIVISION PLAN	1:250	00



CODE	DESCRIPTION	CODE	DESCRIPTION
BIR	BUILT IN ROBE	0	OVEN
	BOLLARD W/MIN. 20 LUX	OSD	ON-SITE DETENTION
ВО	FLOOR LIGHTING PROVISION	Р	PANTRY
С	CUPBOARD	PB	PLASTERBOARD
CL	CLOTHES LINE	RWT	RAINWATER TANK
DP	DOWNPIPE	TOW	TOP OF WALL
F	FRIDGE	WIR	WALK IN ROBE
FC	FIBRE CEMENT		
FW	FLOOR WASTE		
HWS	HOT WATER SYSTEM		
L	LINEN CUPBOARD		
NGL	NATURAL GROUND LINE		





ALVARO ARCHITECTS PTY LTD ABN 71 604 570 309 Nom. Architect R. Alvaro 9221 0402 529 840 M Unit 24, 2-8 Daniel Street, A Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

DRAFT DA ISSUE

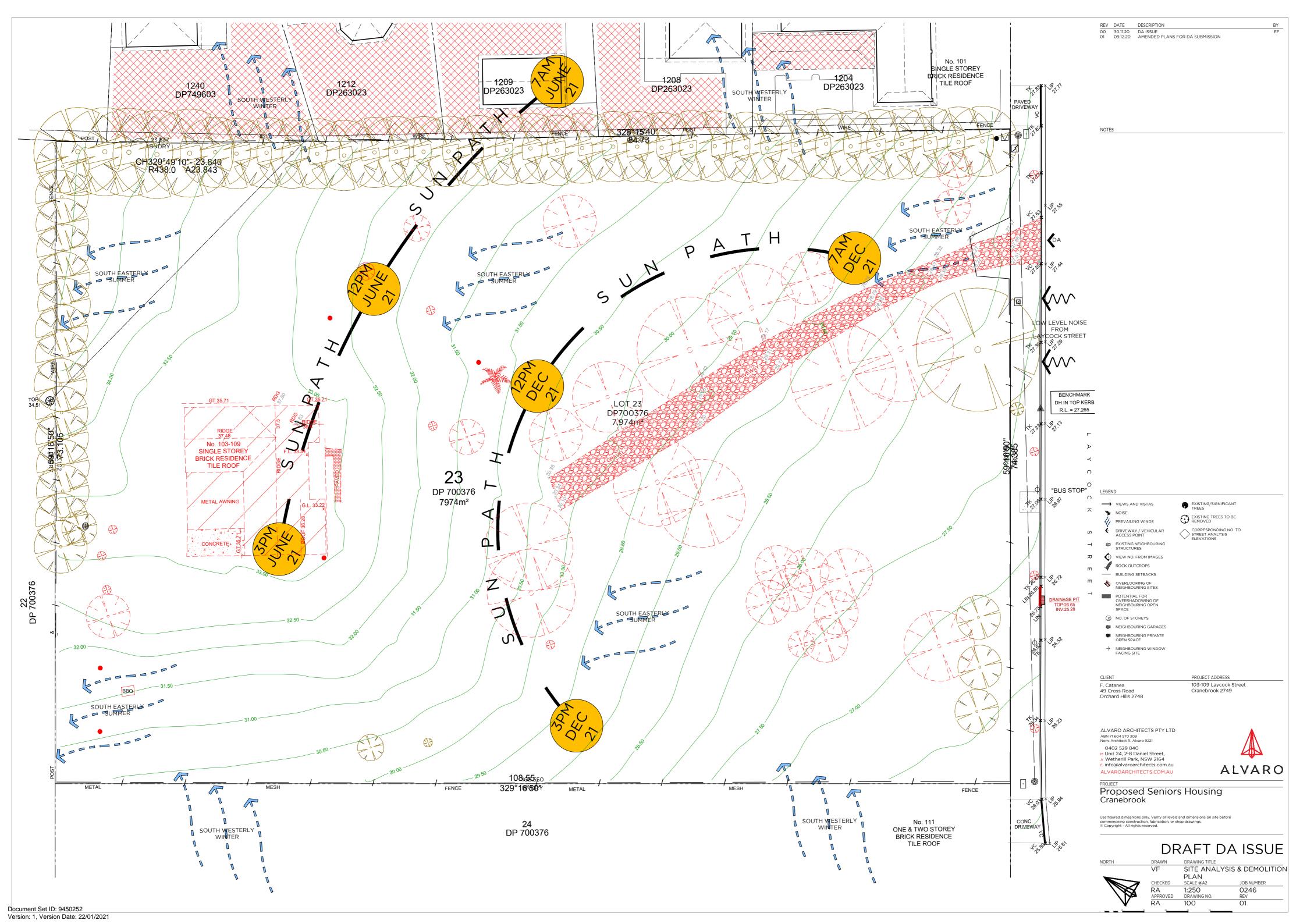
103-109 Laycock Street

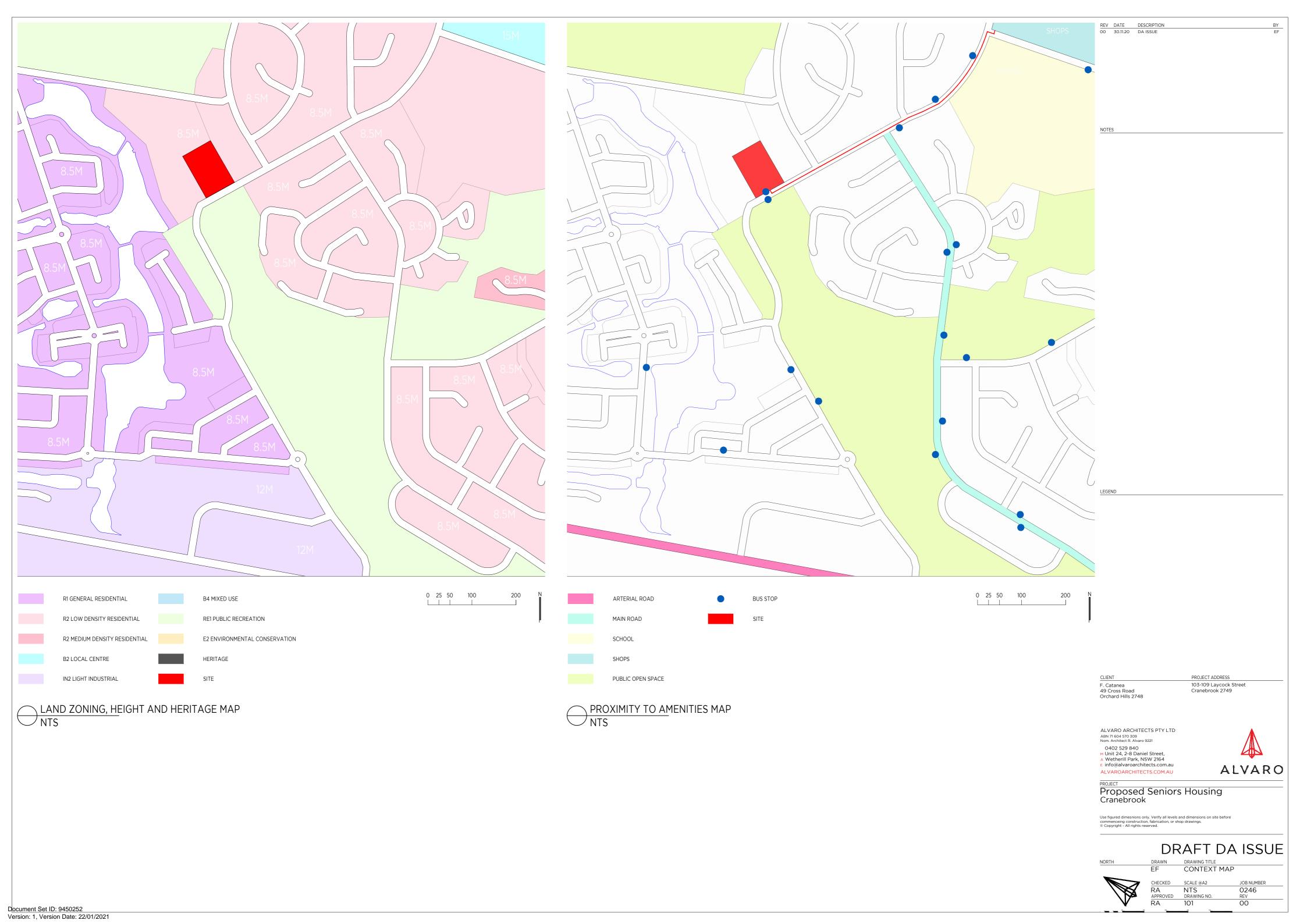
ALVARO

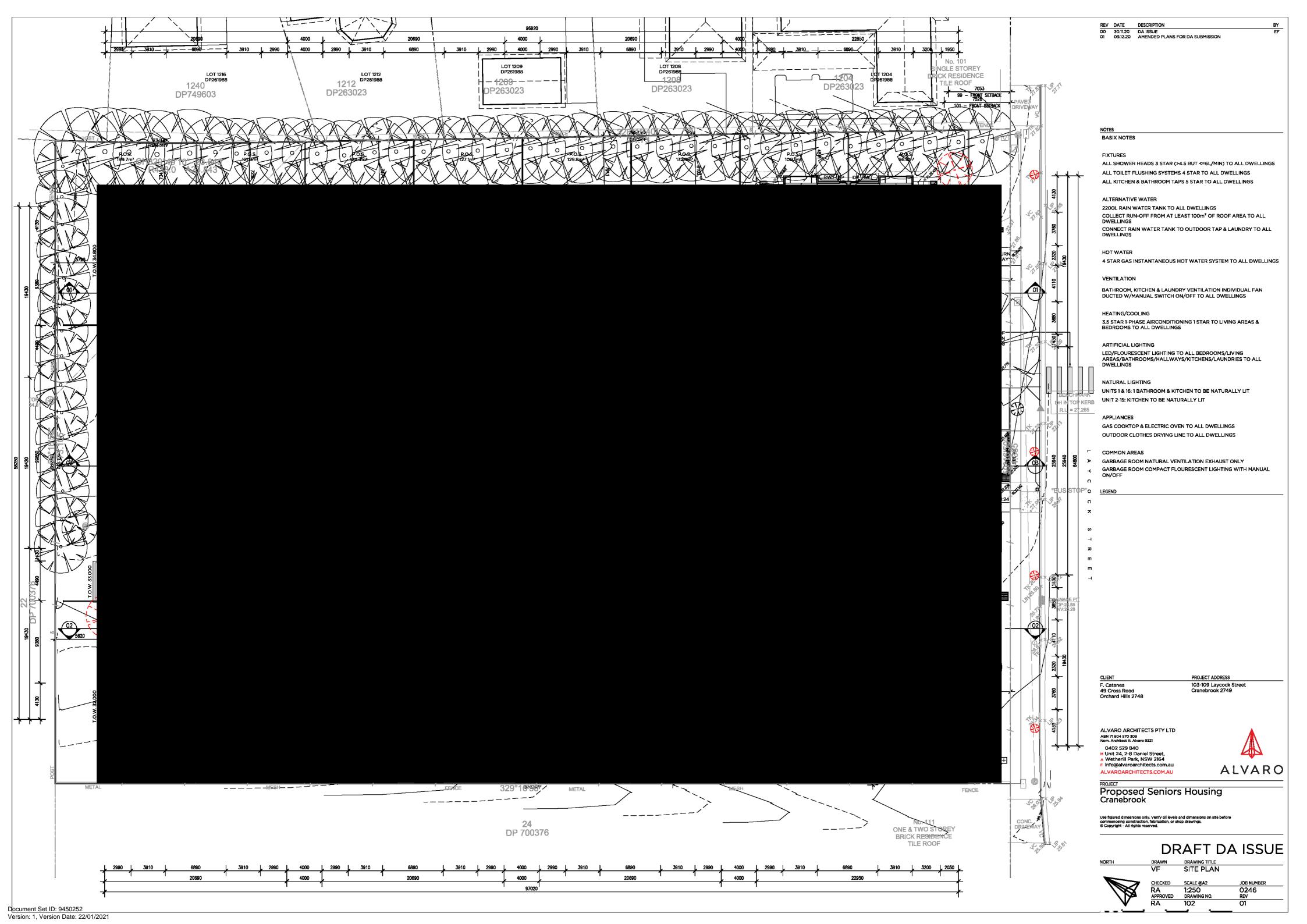


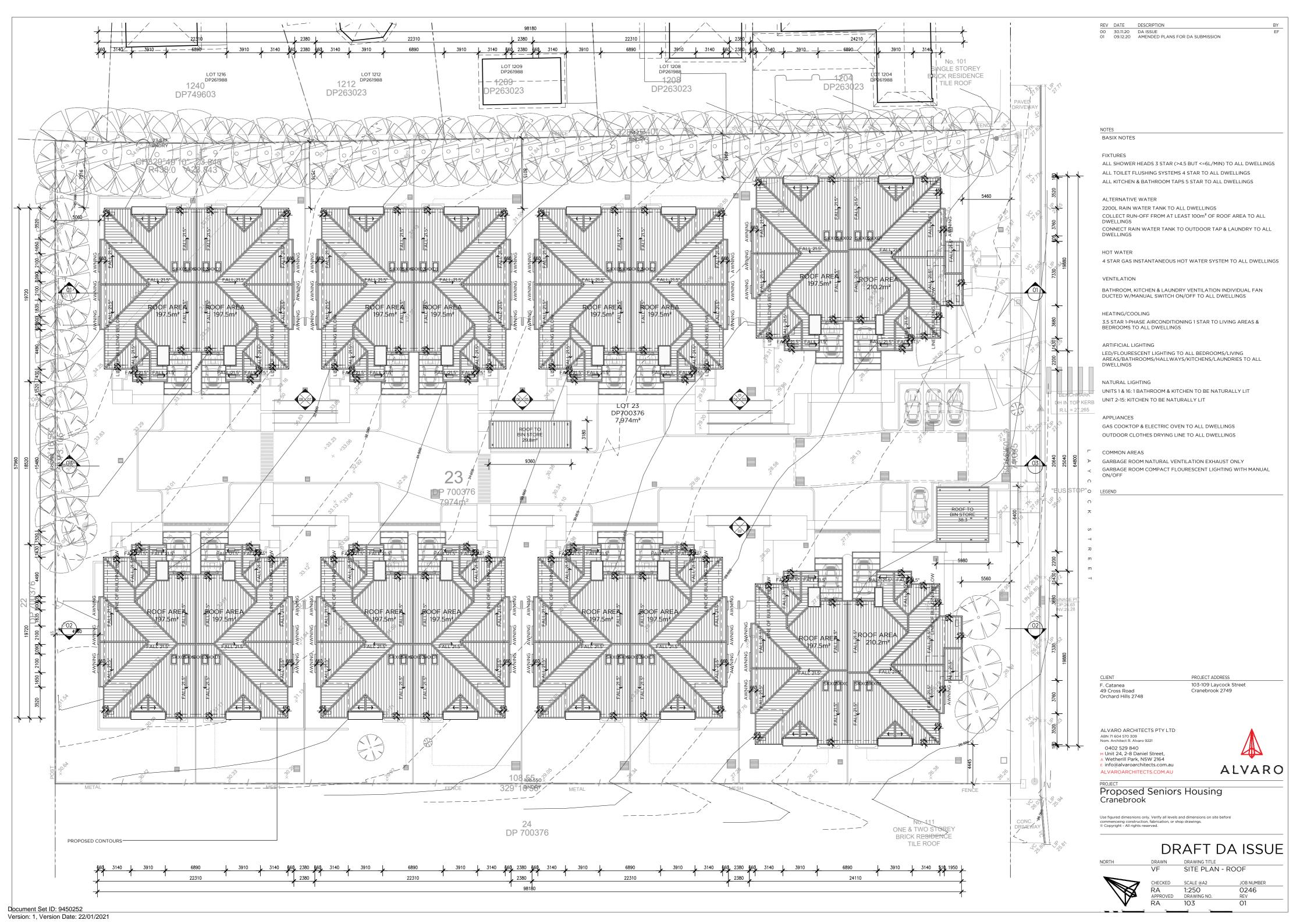
F. Catanea

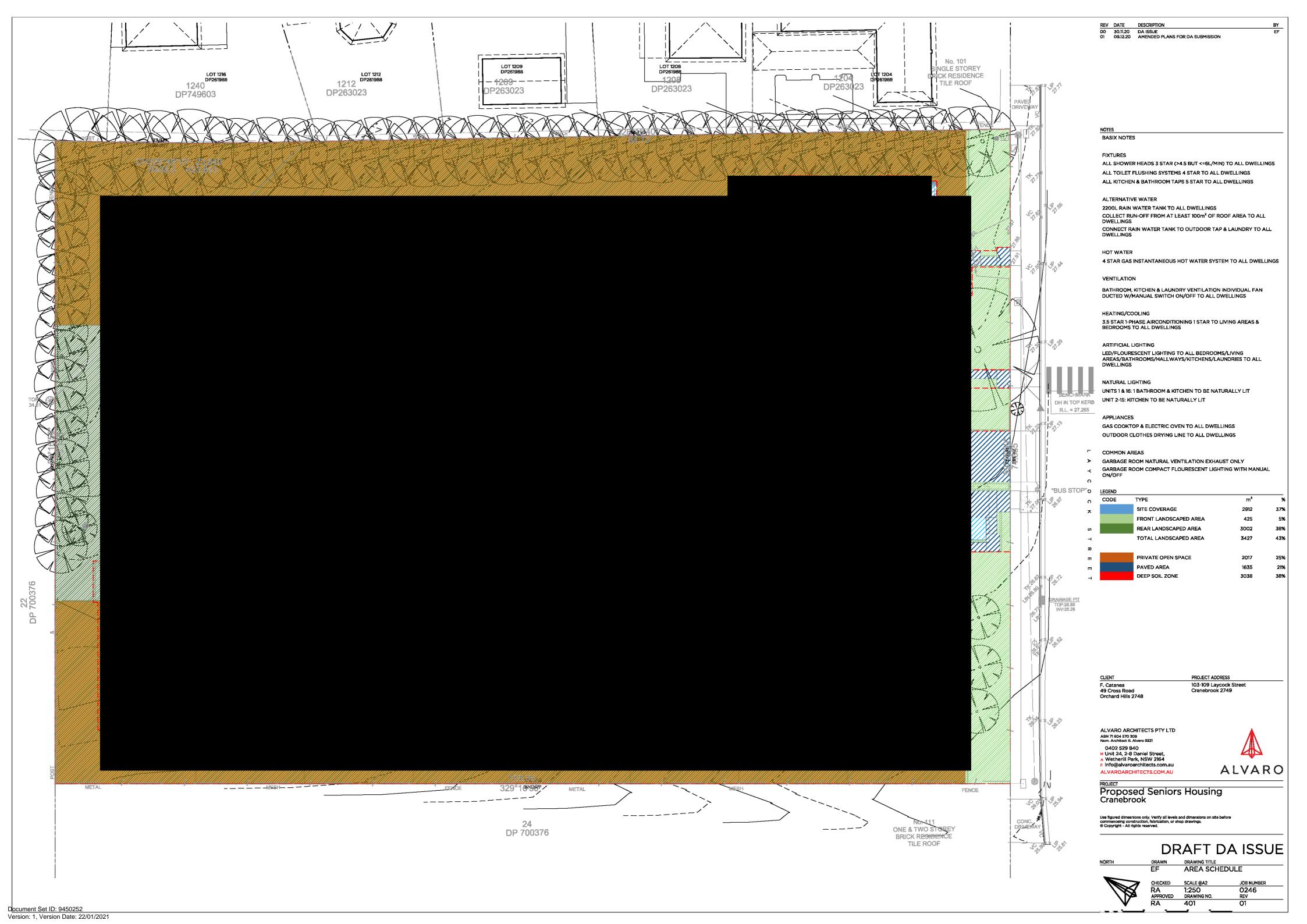
	VF	COVER SHEET	
	CHECKED	SCALE @A2	JOB NUMBER
	RA	NTS	0246
	APPROVED	DRAWING NO.	REV
	RA	000	01
20	30	40 50	

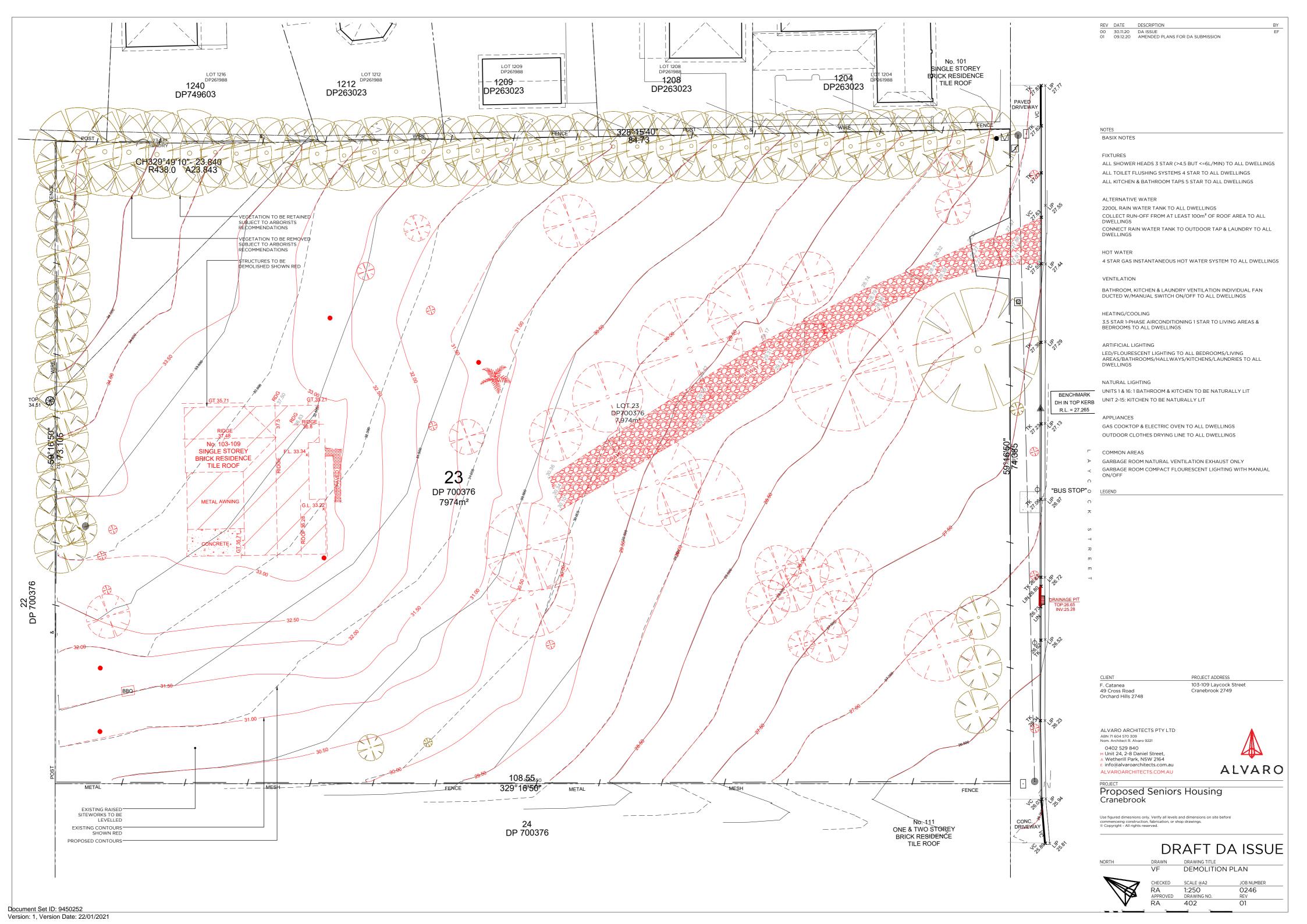


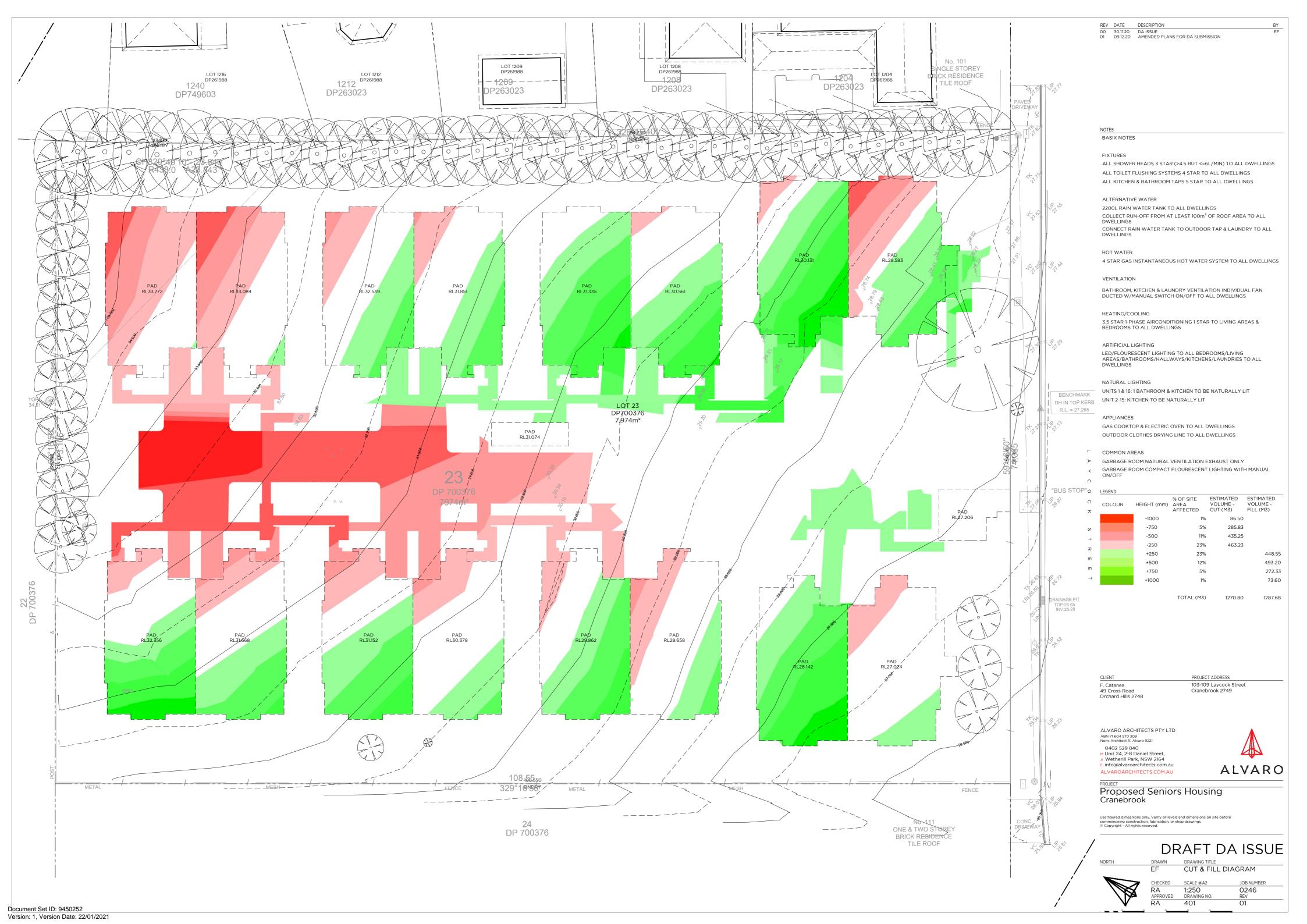






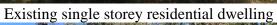






# **APPENDIX B: SITE PHOTOS**







Dirt road leading into the property





Overview of rear of property



Overview of front of property facing towards the existing dwelling



**APPENDIX C: LOTSEARCH** 





Date: 11 Sep 2019 15:14:41 Reference: LS008443 EP

Address: 103-109 Laycock Street, Cranebrook, NSW 2749

#### Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

# **Table of Contents**

Location Confidences	2
Dataset Listings	3
Site Location Aerial	5
Contaminated Land & Waste Management Facilities	6
PFAS Investigation Programs	9
Defence Sites	10
EPA Other Sites with Contamination Issues	11
EPA Current Licensed Activities	12
EPA Delicensed & Former Licensed Activities	14
UPSS Sensitive Zones	16
Historical Business Activities	17
Historical Aerial Imagery & Maps	25
Topographic Features	37
Elevation Contours	41
Hydrogeology & Groundwater	42
Geology	53
Naturally Occurring Asbestos Potential	55
Soils	56
Acid Sulfate Soils	60
Dryland Salinity	63
Mining Subsidence Districts	65
State Environmental Planning	66
Environmental Planning Instruments	67
Heritage	69
Natural Hazards	71
Ecological Constraints	73
Terms & Conditions	83

# **Location Confidences**

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading "LC" or "LocConf". These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

# **Dataset Listing**

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	11/09/2019	11/09/2019	Daily	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	12/08/2019	01/08/2019	Monthly	1000	0	0	1
Contaminated Land Records of Notice	Environment Protection Authority	12/08/2019	12/08/2019	Monthly	1000	0	0	0
Former Gasworks	Environment Protection Authority	02/09/2019	11/10/2017	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/08/2019	07/03/2017	Quarterly	1000	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	02/09/2019	02/09/2019	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program	Department of Defence	02/09/2019	02/09/2019	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	02/09/2019	02/08/2019	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	02/09/2019	02/09/2019	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	13/12/2018	13/12/2018	Annually	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	26/08/2019	26/08/2019	Monthly	1000	0	0	4
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	26/08/2019	26/08/2019	Monthly	1000	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	26/08/2019	26/08/2019	Monthly	1000	0	0	7
UPSS Environmentally Sensitive Zones	Environment Protection Authority	14/04/2015	12/01/2010	As required	1000	1	1	1
UBD Business to Business Directory 1991 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business to Business Directory 1991 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business to Business Directory 1986 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business to Business Directory 1986 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1982 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1982 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1961 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1961 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	0	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Points of Interest	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	Quarterly	1000	0	0	22
Tanks (Areas)	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	Quarterly	1000	0	0	0
Tanks (Points)	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	Quarterly	1000	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	Quarterly	1000	0	0	2
State Forest	NSW Department of Finance, Services & Innovation	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/01/2019	14/11/2018	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Botany Groundwater Management Zones	NSW Department of Primary Industries	15/03/2018	01/10/2005	As required	1000	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000	0	0	108
Geological Units 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	1	-	3
Geological Structures 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	0	-	1
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Soil Landscapes	NSW Office of Environment & Heritage	12/08/2014		None planned	1000	1	-	5
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000	1	1	3
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning and Environment	06/09/2019	09/08/2019	Weekly	500	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	1	1	2
Dryland Salinity Potential of Western Sydney	NSW Office of Environment & Heritage	12/05/2017	01/01/2002	None planned	1000	1	1	10
Mining Subsidence Districts	NSW Department of Finance, Services & Innovation	11/04/2019	11/04/2019	Quarterly	1000	0	0	0
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning and Environment	06/09/2019	07/12/2018	Weekly	1000	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning and Environment	06/09/2019	30/08/2019	Weekly	1000	1	4	27
Commonwealth Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	31/07/2018	Unknown	1000	0	0	0
National Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	28/09/2018	Unknown	1000	0	0	0
State Heritage Register - Curtilages	NSW Office of Environment & Heritage	15/07/2019	09/11/2018	Quarterly	1000	0	0	0
Environmental Planning Instrument Heritage	NSW Department of Planning and Environment	06/09/2019	09/08/2019	Weekly	1000	0	0	3
Bush Fire Prone Land	NSW Rural Fire Service	28/08/2019	03/06/2019	Quarterly	1000	0	1	3
Remnant Vegetation of the Cumberland Plain	NSW Office of Environment & Heritage	07/10/2014	04/08/2011	Unknown	1000	0	0	9
Ramsar Wetlands of Australia	Commonwealth of Australia Department of the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	2
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	3
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	11/09/2019	11/09/2019	Weekly	10000	-	-	-

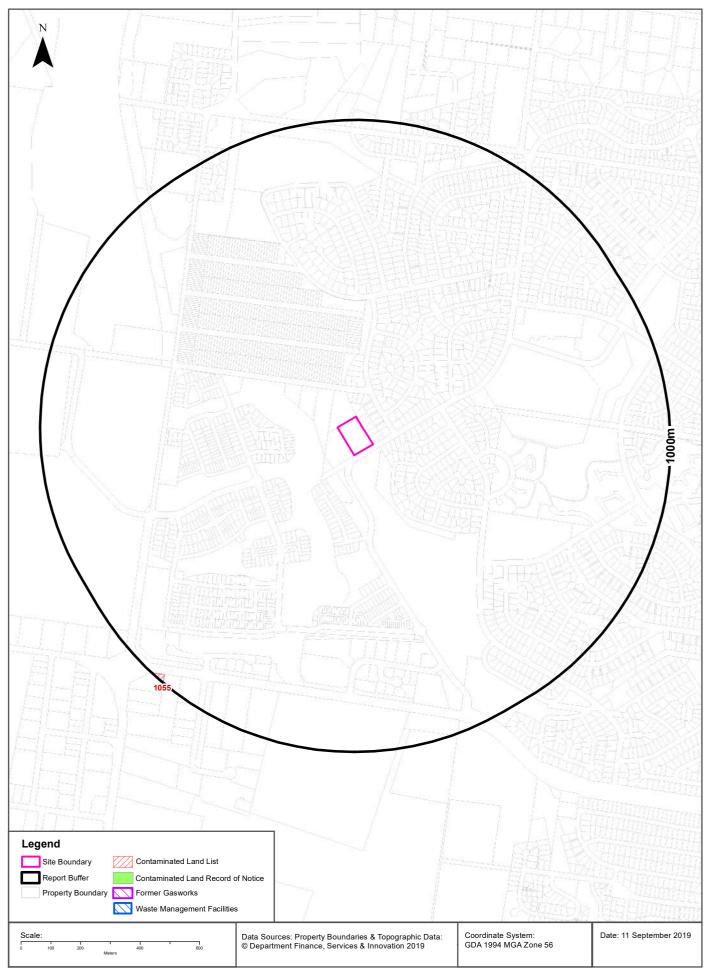
Aerial Imagery 2018
103-109 Laycock Street, Cranebrook, NSW 2749





### **Contaminated Land & Waste Management Facilities**





### **Contaminated Land & Waste Management Facilities**

103-109 Laycock Street, Cranebrook, NSW 2749

#### List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
1055	7-Eleven (former Mobil) Service Station	212-222 Andrews Road	Penrith	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	978m	South West

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority © State of New South Wales through the Environment Protection Authority

### **Contaminated Land & Waste Management Facilities**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Contaminated Land: Records of Notice**

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority © State of New South Wales through the Environment Protection Authority Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm

#### **Former Gasworks**

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

### **National Waste Management Site Database**

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

### **PFAS Investigation Sites**

103-109 Laycock Street, Cranebrook, NSW 2749

### **EPA PFAS Investigation Program**

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Id	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

### **Defence PFAS Investigation & Management Program**

Sites being investigated or managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

### Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

### **Defence Sites**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Defence 3 Year Regional Contamination Investigation Program**

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

### **EPA Other Sites with Contamination Issues**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **EPA Other Sites with Contamination Issues**

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- · James Hardie asbestos manufacturing and waste disposal sites
- · Radiological investigation sites in Hunter's Hill
- · Pasminco Lead Abatement Strategy Area

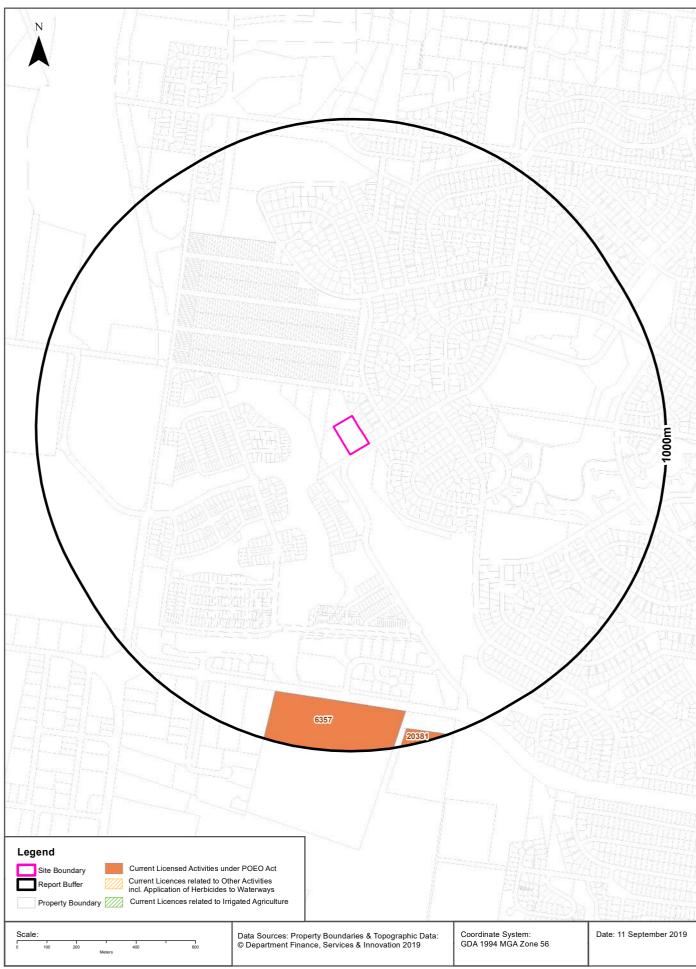
#### Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority © State of New South Wales through the Environment Protection Authority

### **Current EPA Licensed Activities**





### **EPA Activities**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Licensed Activities under the POEO Act 1997**

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

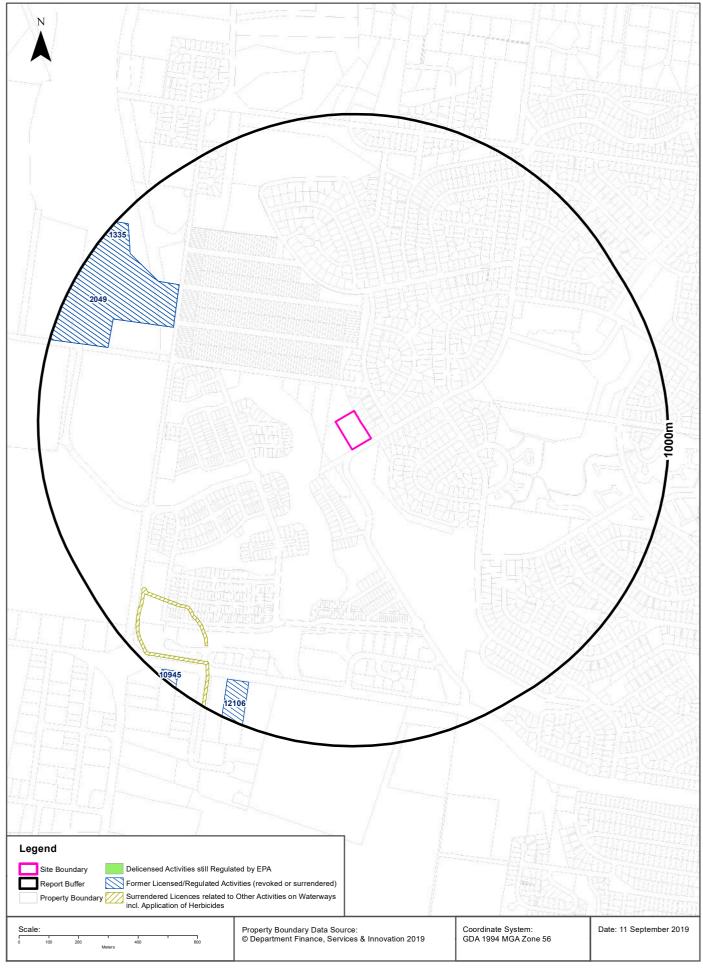
EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6357	O-I OPERATIONS (AUSTRALIA) PTY LTD	ACI GLASS PACKAGING	130-172 ANDREW ROAD	PENRITH	Ceramic waste generation	Premise Match	827m	South
6357	O-I OPERATIONS (AUSTRALIA) PTY LTD	ACI GLASS PACKAGING	130-172 ANDREW ROAD	PENRITH	Glass production (container)	Premise Match	827m	South
6357	O-I OPERATIONS (AUSTRALIA) PTY LTD	ACI GLASS PACKAGING	130-172 ANDREW ROAD	PENRITH	Recovery of general waste	Premise Match	827m	South
20381	Glass Recovery Services Pty Ltd		126 Andrews Road, PENRITH, NSW 2740		Recovery of general waste; Waste storage - other types of waste	Premise Match	943m	South

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

### **Delicensed & Former Licensed EPA Activities**





### **EPA Activities**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Delicensed Activities still regulated by the EPA**

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

# Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

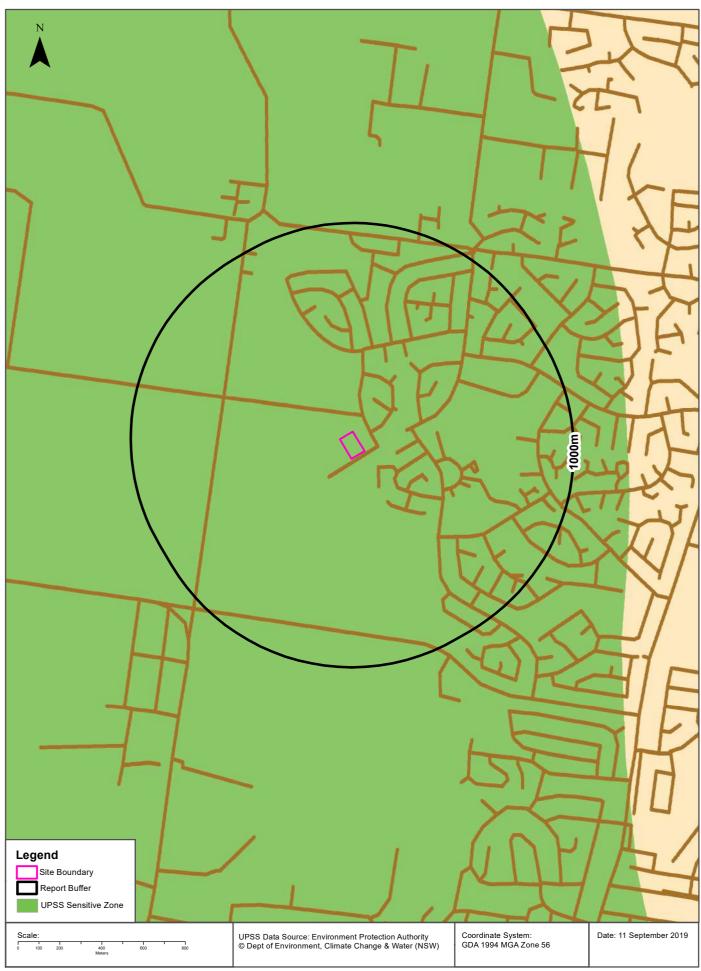
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
1335	HANSON CONSTRUCTION MATERIALS PTY LTD		Surrendered	24/05/2000	Concrete works	Premise Match	631m	North West
2049	HANSON CONSTRUCTION MATERIALS PTY LTD		Surrendered	06/06/2000	Crushing, grinding or separating; Waste Storage, Transfer, Separating or Processing	Premise Match	631m	North West
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	ONMENT THROUGHOUT Activity - Application of Herbicides GEMENT NSW		Network of Features	762m	-		
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	-
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	-
12106	VIP STEEL PACKAGING PTY LTD	182-184 Andrews Road, PENRITH, NSW 2750	Surrendered	28/04/2004	Container reconditioning; Non- thermal treatment of hazardous and other waste	Premise Match	858m	South West
10945	CUMMINS SOUTH PACIFIC PTY. LTD.	7 Andrews Road, PENRITH, NSW 2750	Surrendered	19/06/2000	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	949m	South West

Former Licensed Activities Data Source: Environment Protection Authority © State of New South Wales through the Environment Protection Authority

### **UPSS Sensitive Zones**





103-109 Laycock Street, Cranebrook, NSW 2749

## 1991 Business to Business Directory Records Premise or Road Intersection Matches

Records from the 1991 UBD Business to Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	<b>Business Activity</b>	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1991 Business to Business Directory Records Road or Area Matches**

Records from the 1991 UBD Business to Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

## 1986 Business to Business Directory Records Premise or Road Intersection Matches

Records from the 1986 UBD Business to Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1986 Business to Business Directory Records Road or Area Matches**

Records from the 1986 UBD Business to Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

# 1982 Business Directory Records Premise or Road Intersection Matches

Records from the 1982 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	<b>Business Activity</b>	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1982 Business Directory Records Road or Area Matches**

Records from the 1982 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

# 1970 Business Directory Records Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1970 Business Directory Records Road or Area Matches**

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

### 1961 Business Directory Records Premise or Road Intersection Matches

Records from the 1961 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1961 Business Directory Records Road or Area Matches**

Records from the 1961 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

# 1950 Business Directory Records Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

# **1950 Business Directory Records Road or Area Matches**

Records from the 1950 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

103-109 Laycock Street, Cranebrook, NSW 2749

# **Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches (1948-1993)**

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

P	Map Id	Business Activity	Premise	Ref No.	Year	Confidence	Distance to Property Boundary or Road Intersection	Direction
		No records in buffer						

### Dry Cleaners, Motor Garages & Service Stations Road or Area Matches (1948-1993)

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

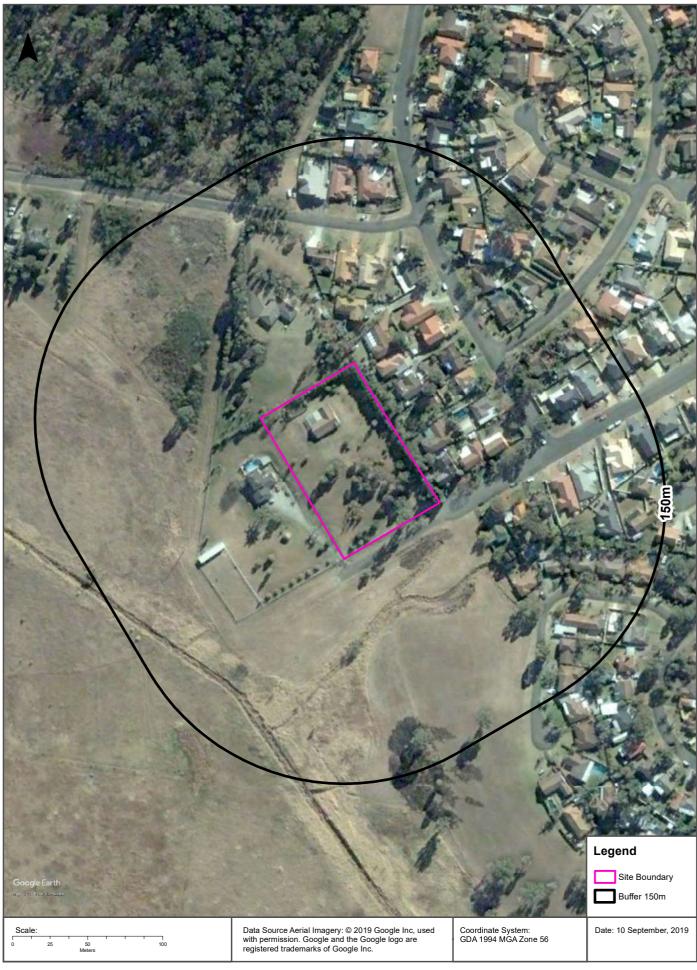
Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	<b>Business Activity</b>	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
	No records in buffer					









Aerial Imagery 1991 103-109 Laycock Street, Cranebrook, NSW 2749





Aerial Imagery 1982 103-109 Laycock Street, Cranebrook, NSW 2749





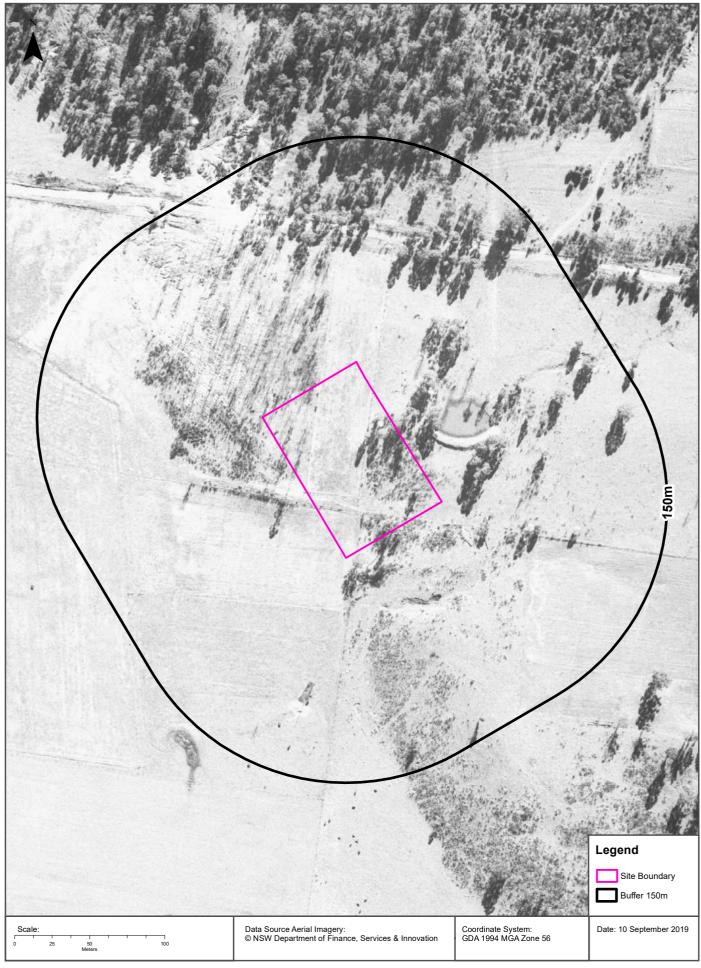




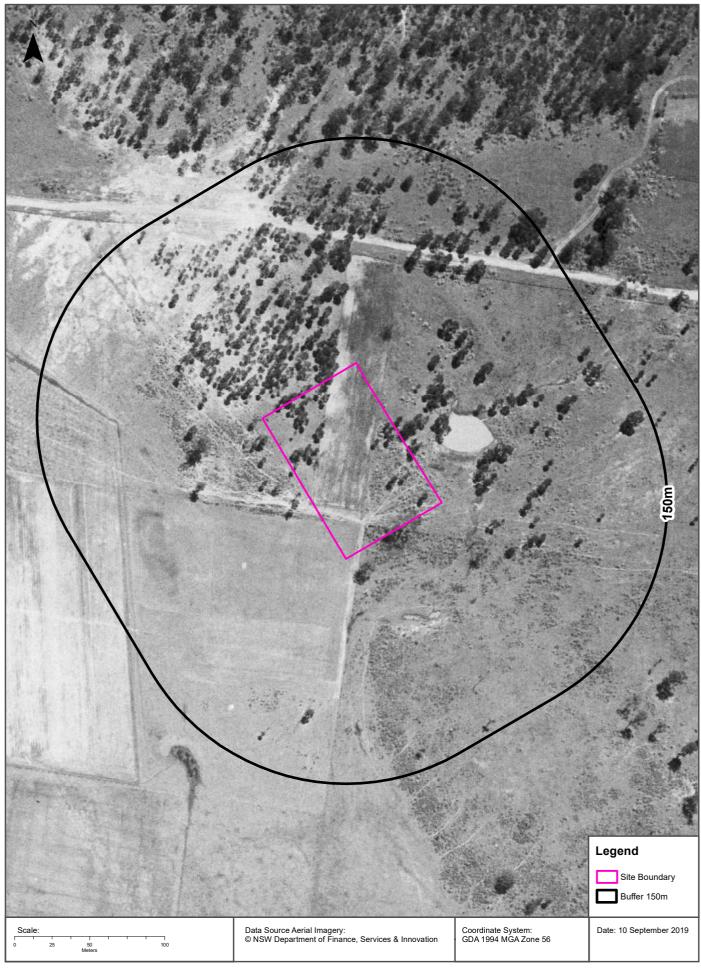






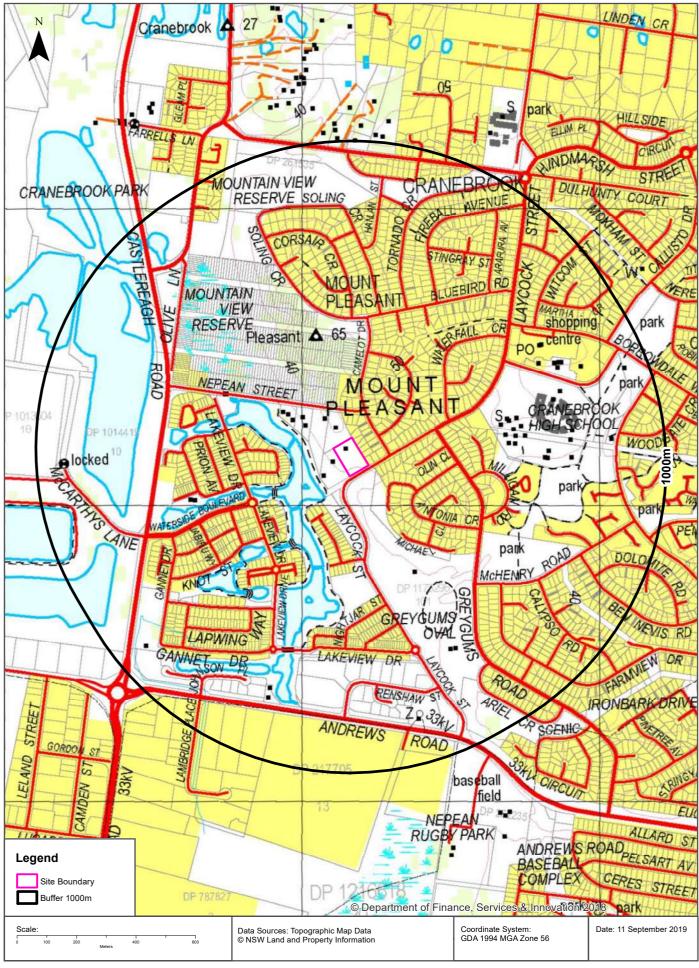






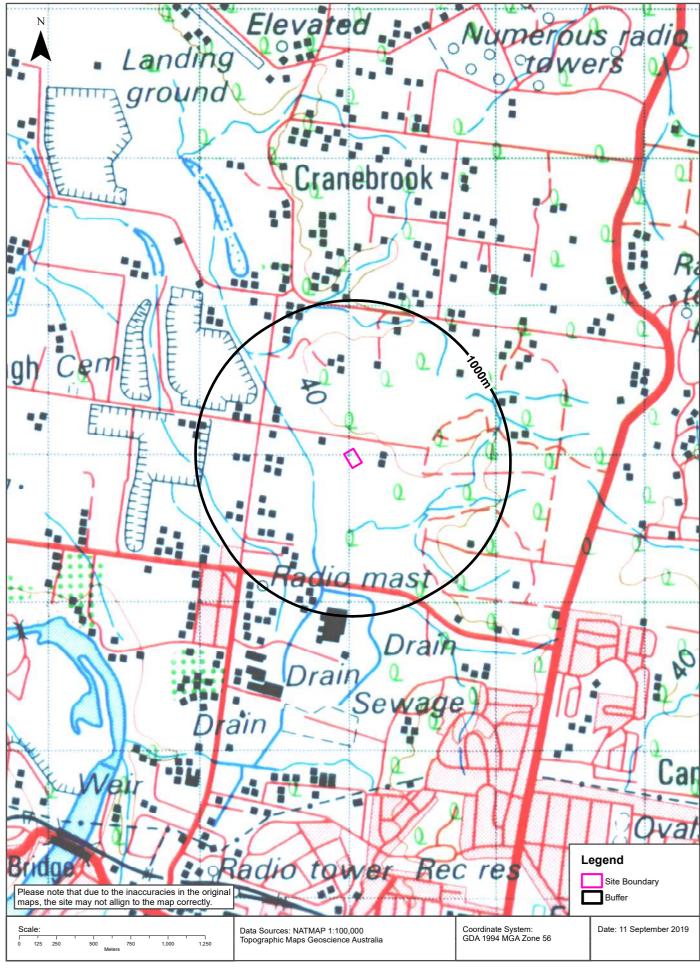
### **Topographic Map 2015**





### **Historical Map 1975**





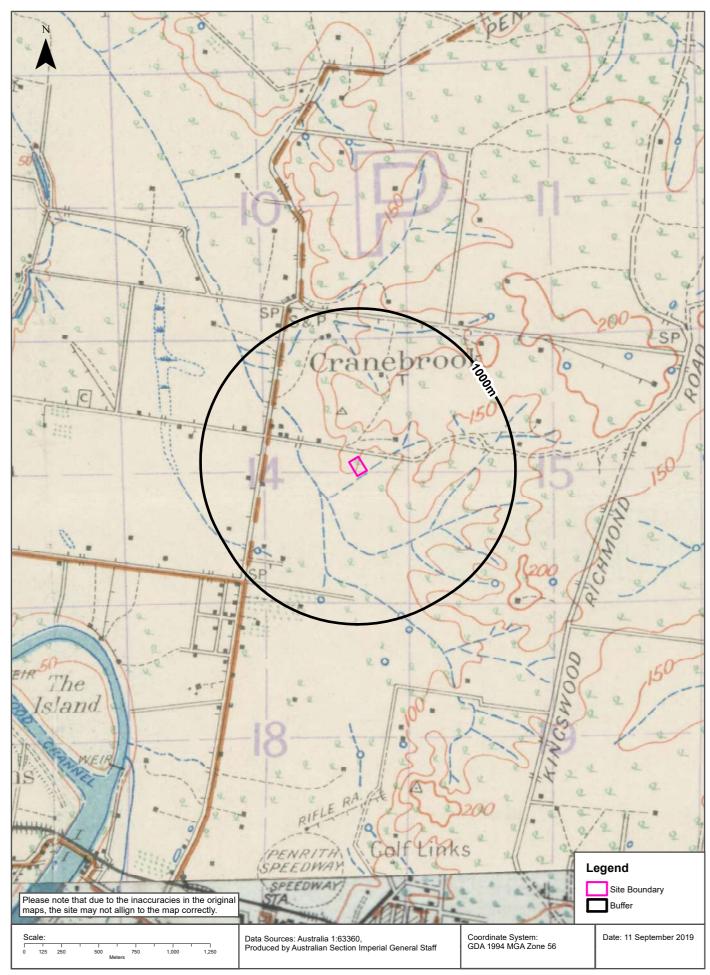
### **Historical Map c.1942**



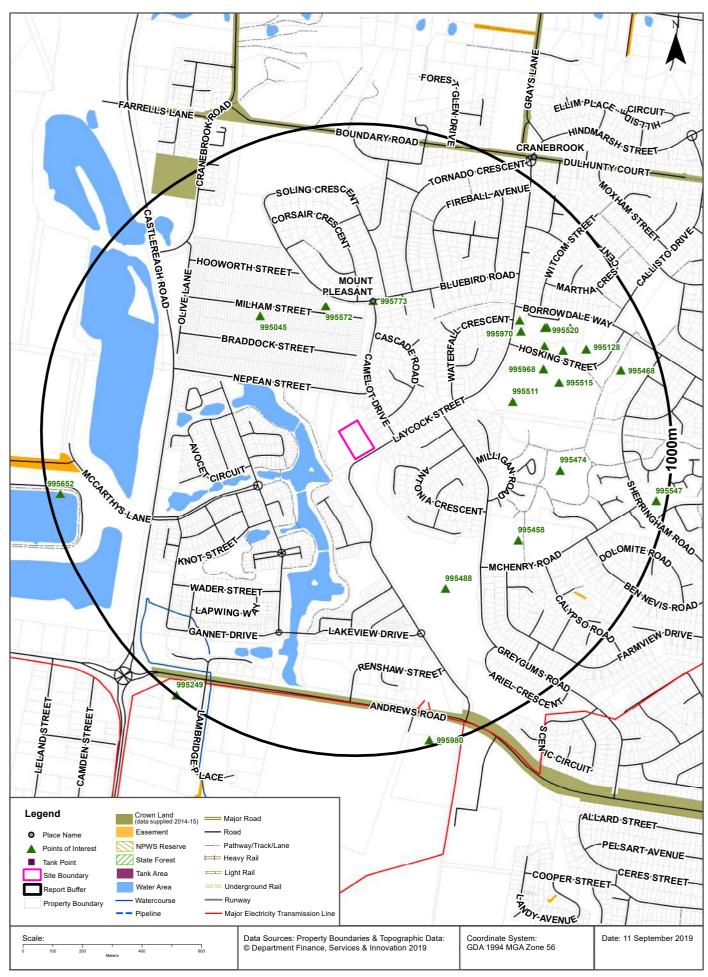


### **Historical Map c.1929**









103-109 Laycock Street, Cranebrook, NSW 2749

### **Points of Interest**

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
995572	Mountain/Hill/Peak	MOUNT PLEASANT	400m	North
995773	Urban Place	MOUNT PLEASANT	406m	North
995045	Park	MOUNTAIN VIEW RESERVE	471m	North West
995511	Primary School	BRADDOCK PUBLIC SCHOOL	490m	East
995488	Sports Field	GREYGUMS OVAL	529m	South East
995458	Park	Park	575m	South East
995970	Parking Area	Parking Area	626m	North East
995968	Parking Area	Parking Area	627m	East
995474	Park	Park	628m	East
995541	Medical Centre	CRANEBROOK COMMUNITY HEALTH CENTRE	641m	North East
995515	High School	CRANEBROOK HIGH SCHOOL	658m	East
995017	Community Facility	CRANEBROOK NEIGHBOURHOOD CENTRE	667m	North East
995520	Post Office	CRANEBROOK POST OFFICE	700m	North East
995447	Shopping Centre	MOUNT PLEASANT SHOPPING CENTRE	707m	North East
995554	Child Care Centre	TAMARA CHILDRENS CENTRE	715m	North East
995969	Parking Area	Parking Area	773m	North East
995128	Community Facility	BARNARDOS PENRITH CHILDRENS FAMILY CENTRE	786m	East
995468	Park	Park	869m	East
995652	Wharf	Wharf	959m	West
995547	Park	Park	963m	East
995980	Parking Area	Parking Area	979m	South
995249	Parking Area	Parking Area	997m	South West

Topographic Data Source: © Land and Property Information (2015)

 $\label{lem:commons} \textbf{Creative Commons 3.0 } \\ \textcircled{Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en}$ 

103-109 Laycock Street, Cranebrook, NSW 2749

### Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

### **Tanks (Points)**

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction	
	No records in buffer						

Tanks Data Source: © Land and Property Information (2015)

Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

### **Major Easements**

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120109909	Primary	Undefined		829m	South East
152637152	Primary	Right of way	32.0	881m	West

Easements Data Source: © Land and Property Information (2015)

Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

103-109 Laycock Street, Cranebrook, NSW 2749

#### **State Forest**

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

#### **National Parks and Wildlife Service Reserves**

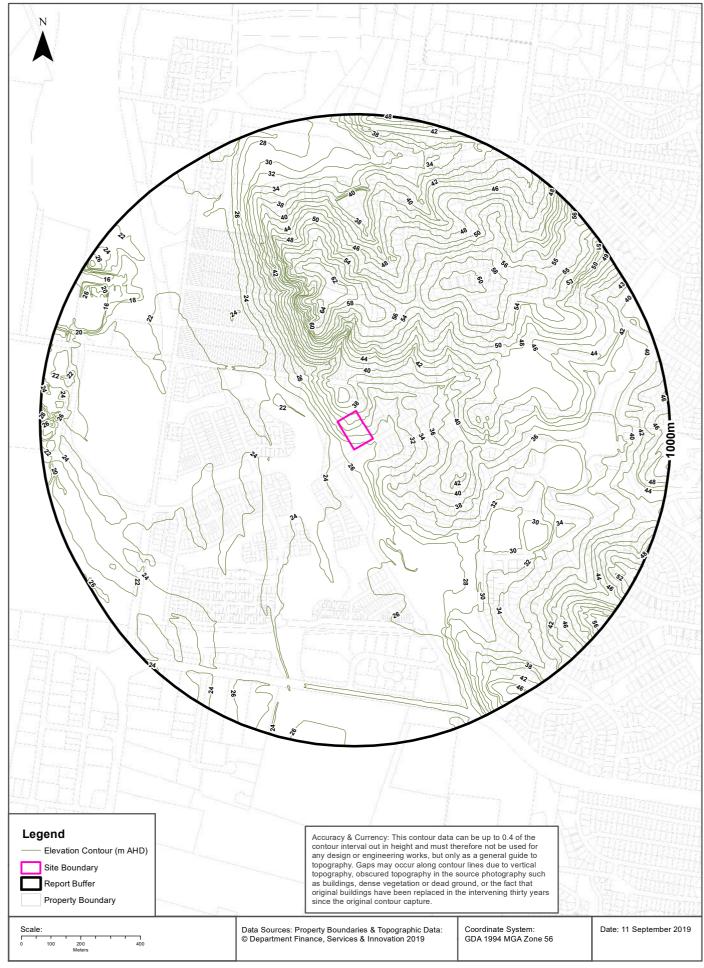
What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

### **Elevation Contours (m AHD)**





## **Hydrogeology & Groundwater**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Hydrogeology**

Description of aquifers on-site:

Description	
Porous, extensive highly productive aquifers	

Description of aquifers within the dataset buffer:

Description	
Porous, extensive highly productive aquifers	

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

#### **Botany Groundwater Management Zones**

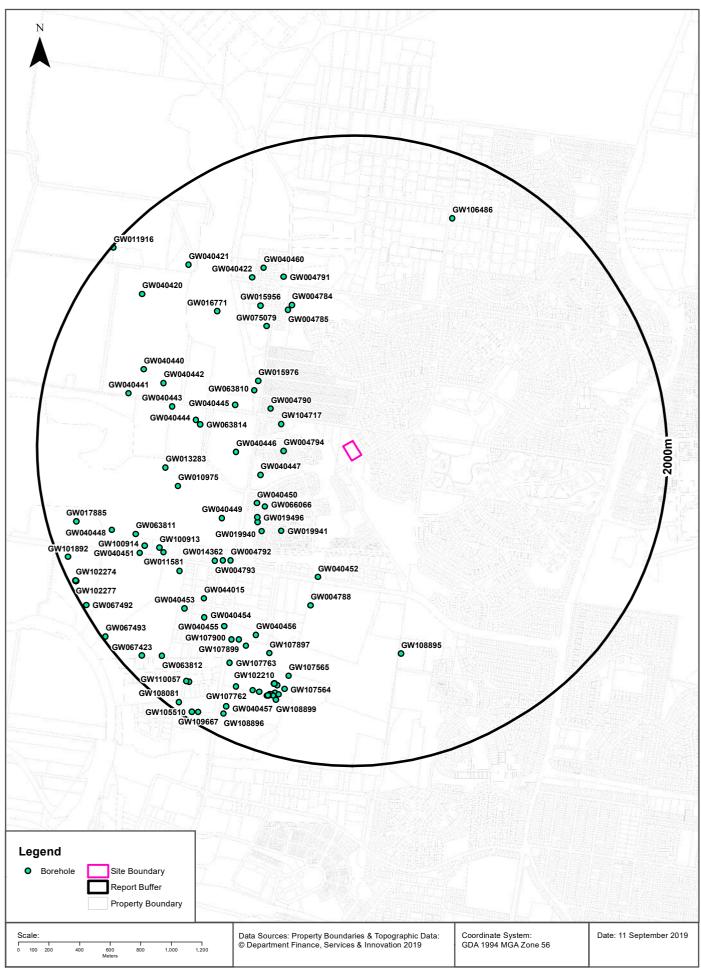
Groundwater management zones relating to the Botany Sand Beds aquifer within the dataset buffer:

Management Zone No.	Restriction	Distance	Direction
N/A	No records in buffer		

Botany Groundwater Management Zones Data Source: NSW Department of Primary Industries

#### **Groundwater Boreholes**





# **Hydrogeology & Groundwater**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Groundwater Boreholes**

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)		Elev (AHD)	Dist	Dir
GW004 794	10BL007 316	Well	Private	Irrigation	Irrigation		01/02/1955	7.30		Fair			52.02	390m	West
GW104 717	10BL159 454	Bore	Private	Test Bore	Test Bore		22/05/2000	45.00	45.00	Good		2.190		429m	West
GW004 790	10BL007 304	Well	Private	Domestic	Domestic			7.60		501- 1000 ppm			52.40	532m	North West
GW040 447		Well	Private		Not Known			7.70					53.28	572m	West
GW066 066	10BL143 361, 10WA11 2632	Bore	Private	Domestic, Stock	Domestic, Stock		19/08/1991	12.00	12.00				23.00	640m	South West
GW019 941	10BL012 450	Well	Private	Domestic, Irrigation	Irrigation		01/01/1937	10.40					53.98	650m	South West
GW040 450		Well	Private		Not Known			7.50					53.19	673m	South West
GW063 810	10BL137 760	Bore	Private	Test Bore	Monitoring Bore		01/03/1988	15.60	15.60				22.84	684m	North West
GW040 446		Well	Private		Not Known			8.10					53.80	699m	West
GW015 976	10BL009 283	Well	Private	Conservation Of Water, Farming, Irrigation, Stock	Irrigation		01/05/1958	10.30	10.40				53.13	700m	North West
GW019 496	10BL012 540	Well	Private	Domestic	Domestic		01/04/1961	8.50	8.50				54.23	719m	South West
GW040 459		Well	Private		Domestic, Irrigation, Stock		01/06/1961		8.50				54.68	735m	South West
GW019 940	10BL012 451	Well	Private	Domestic, Irrigation	Domestic		01/01/1939	8.70	8.80	Good			54.20	748m	South West
GW040 445		Well	Private		Not Known			7.00					52.73	755m	West
GW040 452		Well	Private		Irrigation			8.30					55.32	795m	South
GW040 449		Well	Private		Not Known			7.80					54.19	921m	South West
GW075 079		Bore	NSW Office of Water		Monitoring Bore	CRANEBR OOK BORE AT CRANEBR OOK PARK #1	02/09/1998	14.50	14.50	3046	0.00		21.86	932m	North West
GW063 814	10BL137 764	(Unkn own)	Private	Test Bore	Monitoring Bore		01/03/1989	0.00	12.60				23.49	944m	West
GW004 785	10BL006 946	Bore	Private	Test Bore	G/water Xplore		01/05/1957	0.00	12.20	V.Salty				955m	North West
GW004 784	10BL006 945	Bore	Private	Test Bore	G/water Xplore		01/05/1957	0.00	12.20	V.Salty				973m	North
GW040 444		Well	Private		Not Known			7.70					53.92	975m	West
GW004 788	10BL007 303	Well	Private	Domestic, Stock	General Use			9.70						987m	South
GW004 792	10BL007 211	Well	Private	Not Known	Not Known			7.30		Good				1024m	South West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)		Elev (AHD)	Dist	Dir
GW014 362	10BL005 561	Well	Private	Irrigation	Irrigation		01/01/1960	6.30	6.40	Domesti c				1065m	South West
GW015 956	10BL007 305, 10WA10 8074	Well	Private	Domestic	Domestic			8.60		1001- 3000 ppm				1068m	North West
GW004 793	10BL007 314	Well	Private	Irrigation, Not Known	Irrigation		01/01/1958	7.90	7.90				53.89	1107m	South West
GW010 975		Well	Private		Monitoring Bore		01/10/1954	8.50	8.50					1110m	West
GW040 443		Well	Private		Not Known			7.60					52.97	1147m	West
GW004 791	10BL008 205, 10WA10 8084	Well	Private	Domestic	General Use			7.30		3001- 7000 ppm			52.59	1164m	North
GW013 283	10BL004 990	Well	Private	Domestic, Irrigation	Irrigation		01/10/1957	8.80	8.80					1167m	West
GW016 771	10BL007 194	Well	Private	Domestic, Irrigation	Irrigation		01/02/1955	8.20	8.20	Good				1207m	North West
GW040 442		Well	Private		Irrigation			6.70					52.70	1242m	West
GW040 422		Well	Private		Not Known			5.30					50.47	1254m	North West
GW040 460		Well	Private		Domestic, Irrigation, Stock		28/03/1969		9.50					1272m	North West
GW040 456		Well	Private		Not Known			8.40					54.41	1302m	South West
GW108 895	10BL165 832	Bore	Other Govt	Test Bore	Test Bore		04/06/2008	14.70	14.70	9.3	6.30	1.100		1306m	South
GW044 015	10BL102 457, 10WA11 2618	Well	Private	Domestic	Domestic			9.80						1321m	South West
GW063 813	10BL137 763	(Unkn own)	Private	Monitoring Bore	Monitoring Bore		01/03/1988	12.60	12.60				24.13	1335m	South West
GW011 581	10BL004 698	Well	Private	Irrigation	Irrigation		01/12/1955	7.30	7.30	Good			53.74	1363m	South West
GW040 455		Well	Private		Irrigation			8.90					54.65	1367m	South West
GW100 913	10BL156 864, 10WA11 2657	Bore		Domestic			01/01/1950	14.02	14.02		1.22	0.005		1371m	South West
GW107 897	10BL164 997	Bore		Monitoring Bore	Monitoring Bore		14/02/2005	10.10	10.10		7.00	0.010		1372m	South
GW107 899	10BL164 997	Bore		Monitoring Bore	Monitoring Bore		16/02/2005	10.00	10.00		7.00	0.010		1384m	South West
GW107 898	10BL164 997	Bore		Monitoring Bore	Monitoring Bore		15/05/2005	10.10	10.10		7.00	0.010		1396m	South West
GW040 440		Well	Private		Irrigation			6.10					50.90	1396m	West
GW040 454		Well	Private		Not Known			12.80					55.08	1406m	South West
GW107 900	10BL164 997	Bore		Monitoring Bore	Monitoring Bore		17/02/2005	10.00	10.00		7.00	0.010		1411m	
GW040 441		Well	Private		Not Known			8.00					54.10	1444m	
GW100 914	10BL156 865, 10WA11 2658	Bore		Domestic			01/01/1950	14.00			1.50	6.660		1451m	South West
GW040 453		Well	Private		Not Known			9.00					55.29	1459m	South West
GW107 565	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		22/11/2005	13.80	13.80					1468m	South
GW063 811	10BL137 761	Bore	Private	Monitoring Bore	Monitoring Bore		01/03/1989	14.40	14.40				25.39	1473m	West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)		Elev (AHD)	Dist	Dir
GW040 451		Well	Private		Not Known			9.00					55.32	1499m	South West
GW107 763	10BL165 871, 10WA11 2779	Bore		Groundwater Remediation	Groundwate r Remediatio n		13/06/2006	13.80	13.80		7.20	0.700		1545m	South West
GW102 211	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		30/11/1993	10.60	10.60		8.45			1547m	South
GW102 206	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		10/09/1998	12.00	12.00		7.07			1547m	South
GW102 202	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		04/09/1998	9.00	9.00		6.21			1547m	South
GW102 182	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		03/09/1998	9.10	9.10		6.82			1547m	South
GW102 213	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		26/11/1993	12.80	13.60		8.47			1547m	South
GW102 181	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		16/12/1998	9.30	9.30	350	6.50	0.100		1547m	South
GW102 183	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		02/09/1998	10.50	10.50		7.05			1547m	South
GW102 207	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		27/08/1998	9.50	14.00		6.85			1547m	South
GW102 209	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		10/09/1998	13.35	13.70		6.71			1547m	South
GW102 212	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		02/12/1993	11.60	11.60		8.20			1547m	South
GW102 239	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		31/08/1998	9.40	9.40		6.78			1547m	South
GW102 208	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		27/08/1998	14.85	14.85		6.49			1547m	South
GW102 210	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		01/12/1993	11.40	11.40		8.25			1547m	South
GW102 180	10BL158 921	Bore	Private	Monitoring Bore	Monitoring Bore		16/12/1998	9.20	9.20	400	6.60	0.200		1548m	South
GW114 760	10BL604 345	Bore	Private	Monitoring Bore	Monitoring Bore		30/11/2010	13.80	13.80					1550m	South
GW040 421		Well	Private		Not Known			7.20					52.79	1559m	North West
GW107 564	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		24/11/2005	13.90	13.90					1560m	South
GW106 486	10BL163 690, 10WA10 8775	Bore	Private	Domestic, Stock	Domestic, Stock		15/10/2004	178.00	178.00	395	46.0 0	1.800		1595m	North East
GW108 072	10BL600 035	Bore		Monitoring Bore	Monitoring Bore		05/05/2006	14.20	14.20		6.00			1603m	South
GW107 563	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		23/11/2005	13.90	13.90					1605m	South
GW040 448		Well	Private		Irrigation			8.50					54.41	1607m	West
GW114 758	10BL604 345	Bore	Private	Monitoring Bore	Monitoring Bore		08/12/2010	14.20	14.20					1620m	South
GW114 759	10BL604 345	Bore	Private	Monitoring Bore	Monitoring Bore		17/12/2010	13.70	13.70					1621m	South
GW107 562	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		04/08/2005	14.60	14.60		7.50	0.200		1624m	South
GW107 560	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		02/08/2005	14.20	14.20		7.50	0.300		1630m	South
GW108 071	10BL600 035	Bore		Monitoring Bore	Monitoring Bore		08/03/2006	14.10	14.10					1634m	South
GW107 761	10BL165 871, 10WA11 2779	Bore		Groundwater Remediation	Groundwate r Remediatio		28/11/2005	13.90	13.90	170	7.80	0.500		1634m	South
GW107 561	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		03/08/2005	14.30	14.30		7.50	0.200		1637m	South
GW107 559	10BL165 402	Bore		Monitoring Bore	Monitoring Bore		02/08/2005	13.60	13.60		7.50	0.100		1638m	South

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)		Salinity (mg/L)			Elev (AHD)	Dist	Dir
GW108 899	10BL165 862	Bore	Private	Monitoring Bore	Monitoring Bore		05/06/2008	14.60	14.60		7.00			1645m	South
GW040 420		Well	Private		Irrigation			6.60					50.26	1649m	North West
GW107 762	10BL165 871, 10WA11 2779	Bore		Groundwater Remediation	Groundwate r Remediatio n		25/11/2005	11.60	11.60		7.00	0.700		1662m	South West
GW063 812	10BL137 762	(Unkn own)	Private	Monitoring Bore	Monitoring Bore		01/03/1988	14.60	14.60				25.93	1781m	South West
GW107 307	10BL165 460	Bore		Monitoring Bore	Monitoring Bore		05/08/2005	13.20	13.20		7.50	0.100		1795m	South West
GW110 057	10BL600 022	Well	Private	Monitoring Bore	Monitoring Bore		20/04/2009	13.20	13.20		7.50	0.100		1802m	South West
GW040 457		Well	Private		Not Known			10.20					55.93	1806m	South West
GW017 885	10BL009 134	Well	Private	Domestic	General Use			9.60					55.66	1812m	West
GW108 896	10BL165 837	Battery Spears , Filter Pac	Private	Monitoring Bore	Monitoring Bore		05/06/2008	13.70	13.70		6.50			1858m	South West
GW067 423	10BL142 746	Bore	Private	Monitoring Bore	G/water Xplore		17/07/1990	15.40	15.40					1873m	South West
GW109 667	10BL602 668	Well	Private	Monitoring Bore	Monitoring Bore		02/10/2008	13.70	13.70		13.4 0	0.100		1928m	South West
GW101 892	10BL158 978	Bore		Domestic, Stock	Domestic		01/01/1950	14.33	14.33		6.70			1938m	West
GW108 081	10BL165 831	Bore		Monitoring Bore	Monitoring Bore		02/05/2006	14.35	14.35		7.50			1943m	South West
GW105 510	10BL162 624	Bore		Monitoring Bore	Monitoring Bore		15/05/2003	14.50	14.50		7.00			1949m	South West
GW102 274	10BL141 618	Piezo meter	Private	Monitoring Bore	Test Bore		30/04/1990	16.50	16.50					1956m	South West
GW102 275	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		04/04/1990	16.90	16.90					1956m	South West
GW102 278	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		30/04/1990	15.80	15.80					1956m	South West
GW102 280	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		01/05/1990	16.40	16.40					1957m	South West
GW102 279	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		07/05/1990	15.50	15.50					1957m	South West
GW102 276	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		14/05/1999		17.30					1957m	South West
GW102 273	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		04/04/1990	16.80	16.80					1958m	South West
GW102 277	10BL141 618	Piezo meter	Private	Monitoring Bore	Monitoring Bore		04/04/1990	16.90	16.90					1959m	South West
GW067 492	10BL142 749	Bore	Private	Monitoring Bore	G/water Xplore		17/07/1990	12.50	12.50					1974m	South West
GW067 493	10BL142 748	Bore	Private	Monitoring Bore	G/water Xplore		17/07/1990	11.80	11.80					1978m	South West
GW011 916	10BL005 069	Well	Private	Domestic, Irrigation, Stock	General Use			7.60	7.60					1986m	North West

Borehole Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

# **Hydrogeology & Groundwater**

103-109 Laycock Street, Cranebrook, NSW 2749

## **Driller's Logs**

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW104717	0.00m-3.00m CLAY 3.00m-12.50m SAND AND GRAVEL 12.50m-45.00m FRACTURED GREY SHALE	429m	West
GW066066	0.00m-2.00m topsoil 2.00m-8.00m gravel 8.00m-12.00m gravel big coarse river	640m	South West
GW063810	0.00m-4.50m Topsoil Sandy 4.50m-14.60m Gravel 14.60m-15.60m Shale	684m	North West
GW015976	0.00m-0.60m Loam 0.60m-0.91m Clay 0.91m-6.09m Clay Sandy Water Supply 6.09m-8.53m Sand 8.53m-10.36m Gravel	700m	North West
GW019496	0.00m-8.53m Gravel Water Supply	719m	South West
GW019940	0.00m-3.04m Driller 3.04m-8.77m Gravel Water Supply	748m	South West
GW075079	0.00m-2.50m CLAY, LIGHT BROWN 2.50m-2.70m IRONSTONE & GRAVEL 2.70m-4.00m CLAY, LIGHT BROWN 4.00m-7.00m CLAY, DARK GREY 7.00m-7.50m SAND 7.50m-11.50m SANDY CLAY, MOIST 11.50m-14.00m GRAVEL, COURSE 14.00m-14.50m SHALE	932m	North West
GW063814	0.00m-5.00m Soil Sandy 5.00m-12.30m Gravel 12.30m-12.60m Shale	944m	West
GW004785	0.00m-3.65m Clay 3.65m-6.09m Clay Soft 6.09m-9.14m Sand Dark 9.14m-12.19m Sand Dark Water Supply 9.14m-12.19m Gravel	955m	North West
GW004784	0.00m-3.65m Clay 3.65m-6.09m Clay Soft 6.09m-9.14m Clay Sand 9.14m-12.19m Sand Yellow 9.14m-12.19m Gravel Soft	973m	North
GW014362	0.00m-0.61m Loam 0.61m-6.38m Sand Gravel Water Supply	1065m	South West
GW004793	0.00m-1.83m Clay Red Sand 1.83m-7.92m Sand Stones Water Supply 1.83m-7.92m Gravel	1107m	South West
GW010975	0.00m-8.53m Gravel Coarse Water Supply	1110m	West
GW013283	0.00m-0.30m Topsoil 0.30m-2.74m Subsoil 2.74m-8.83m Gravel Water Supply	1167m	West
GW016771	0.00m-2.74m Soil 2.74m-8.22m Gravel Sand Water Supply	1207m	North West

Groundwater No	Drillers Log	Distance	Direction
GW108895	0.00m-6.50m CLAY BROWN 6.50m-11.30m CLAY GREY 11.30m-11.80m SANDY CLAY 11.80m-12.10m SAND 12.10m-13.60m GRAVELS 13.60m-14.40m SANDSTONE GREY 14.40m-14.60m SANDSTONE D/GREY 14.60m-14.70m SHALE,HARD,BLACK	1306m	South
GW063813	0.00m-3.20m Topsoil Sandy 3.20m-12.30m Gravel 12.30m-12.60m Shale	1335m	South West
GW011581	0.00m-2.43m Topsoil 2.43m-4.87m Soil Clay 2.43m-4.87m Gravel 4.87m-7.31m Gravel Sand Water Supply	1363m	South West
GW107897	0.00m-4.10m BROWN CLAY 4.10m-10.10m GRAVELS	1372m	South
GW107899	0.00m-2.90m SANDY CLAY 2.90m-4.20m CLAY BANDS AND GRAVELS 4.20m-10.00m GRAVELS	1384m	South West
GW107898	0.00m-5.30m SANDY CLAY,DRY, HARD 5.30m-10.10m GRAVELS	1396m	South West
GW107900	0.00m-5.90m BROWN CLAY 5.90m-10.00m GRAVELS	1411m	South West
GW107565	0.00m-0.30m BITUMEN 0.30m-5.50m SANDY CLAY 5.50m-13.60m GRAVELS 13.60m-13.80m SHALE	1468m	South
GW063811	0.00m-5.60m Topsoil Sandy 5.60m-14.20m Gravel 14.20m-14.40m Shale	1473m	West
GW107763	0.00m-5.30m SANDY CLAY 5.30m-13.30m GAVELS 13.30m-13.80m SHALE	1545m	South West
GW102181	0.00m-6.40m SAND, SILT AND CLAY 6.40m-9.30m GRAVEL	1547m	South
GW102183	0.00m-1.00m FILL, SILTY SAND 1.00m-1.10m CONCRETE 1.10m-1.30m FILL, SILTY SAND 1.30m-1.80m SAND, SILTY, CLAYEY 1.80m-3.50m SAND, CLAYEY, ORANGE 3.50m-5.80m SAND, SILTY, CLAYEY 5.80m-6.20m GRAVELS AND COBBLES 6.20m-6.50m BOULDERS, BASALT 6.50m-9.50m GRAVELS AND COBBLES 9.50m-9.70m BOULDER, GRANITE 9.70m-10.50m GRAVELS AND COBBLES	1547m	South
GW102206	0.00m-1.00m FILL.SAND,SILTY,GRAVELLY 1.00m-3.00m SAND, SILTY fine to medium grained trace of clay 3.00m-4.50m SAND, CLAYEY,SILTY fine grained 4.50m-5.50m SAND, SILTY fine to medium grained 5.50m-7.00m GRAVEL AND COBBLES 7.00m-7.40m LARGE COBBLE, BOULDER, GRANITE 7.40m-12.00m GRAVEL AND COBBLES	1547m	South
GW102208	0.00m-0.30m SAND, SILTY 0.30m-1.50m SAND, SILTY, CLAYEY 1.50m-3.10m SAND, SILTY fine grained 3.10m-4.00m SAND, SILTY, CLAYEY, fine grained 4.00m-5.50m PED like structure banded 5-10%clay 5.50m-5.75m SAND, medium grained 5.75m-9.70m GRAVEL AND COBBLES 9.70m-14.40m GRAVEL AND SAND 14.40m-14.50m GRAVEL AND CLAY 14.50m-14.70m GRAVEL, SANDY 14.70m-14.85m GRAVEL AND SHALE	1547m	South

Groundwater No	Drillers Log	Distance	Direction
GW102209	0.00m-0.50m SAND,SILTY fine, to medium gained 0.50m-1.50m SAND, SILTY, CLAYEY fine grained 1.50m-3.60m SAND, CLAYEY fine grained 3.60m-4.80m SAND, SILTY, CLAYEY light orange 4.80m-9.80m SAND. GRAVEL AND COBBLES within with possible large granite boulders 9.80m-11.10m POSSIBLE GRANITE BOULDER, fractured granite 11.10m-13.00m Sand and Gravel, Cobbles 13.00m-13.70m Sand, cobbles, Gravel and Shale	1547m	South
GW102210	0.00m-0.23m Concrete 0.23m-11.40m SAND, SILTY loose <dark and="" boulders<="" cobbles="" grained="" medium="" possible="" td=""><td>1547m</td><td>South</td></dark>	1547m	South
GW102211	0.00m-10.60m SAND,SILTY, loose dark red?brown med grained with some clay possible cobbles and boulders	1547m	South
GW102212	0.00m-0.05m Bitumen 0.05m-11.60m SAND,SILTY loose <dark boulders<="" clay="" cobbles="" medgrained="" possibly="" red?brown="" some="" td="" to="" with=""><td>1547m</td><td>South</td></dark>	1547m	South
GW102213	0.00m-1.50m SAND, SILTY 1.50m-2.00m SAND,CLAYEYloose< red?brown medium grained 2.00m-3.80m SAND,loose< orange/red,fine to medium grain 3.80m-4.40m GRAVEL,loose,light grey 4.40m-13.60m SAND, loose orange/red,fine to medium grained	1547m	South
GW102180	0.00m-6.30m SAND AND SILT 6.30m-9.20m GRAVEL	1548m	South
GW114760	0.00m-0.10m CONCRETE 0.10m-1.50m NON DESTRUCTIVE DRILLING PERFOMED 1.50m-2.30m SAND POORLY GRADED WITH GRAVEL 2.30m-2.90m SAND WELL GRADED 2.90m-4.70m SAND WELL GRADED WITH SILT,GRAVEL AND CLAY 4.70m-7.70m SAND POORLY GRADED AND CLAY WITH COBBLE AND GRAVEL 7.70m-8.90m SAND WELL GRADED WITH GRAVEL 8.90m-9.10m GRANODIORITE COBBLE HARD 9.10m-13.20m SAND POORLY GRADED WITH SILT 13.20m-13.80m SHALE,WEATHERED, FINE GRAINED,HARD	1550m	South
GW107564	0.00m-0.30m ROAD BASE 0.30m-5.30m RED BROWN SILTY CLAY 5.30m-5.80m RED BROWN SILTY CLAY/GRAVELS 5.80m-13.60m GRAVELS 13.60m-13.90m GREY SHALE	1560m	South
GW106486	0.00m-7.00m clay, brown 7.00m-9.00m sand, course 9.00m-14.50m gravels, large 14.50m-15.50m gravels, fine 15.50m-37.00m shale, soft 37.00m-46.00m shale, soft 37.00m-46.00m siltstone, very hard 64.50m-64.60m siltstone, tracture 64.60m-83.00m siltstone, hard 83.00m-101.00m shale, hard 101.00m-103.50m sandstone, dark grey 103.50m-130.00m sandstone, grey 130.00m-135.00m sandstone, fine quartz 132.00m-135.00m sandstone, quertz 135.50m-139.00m sandstone, dark grey 139.00m-148.50m sandstone, dark grey 148.00m-148.50m sandstone, quartz 148.50m-151.00m sandstone, grey 151.00m-152.00m sandstone, grey 151.00m-152.00m sandstone, grey 159.30m-159.60m sandstone, dark grey fractured 159.60m-165.00m sandstone, dark grey 165.00m-170.00m sandstone, dark grey 174.40m-174.40m sandstone, dark grey 174.40m-174.50m sandstone, dracture 174.50m-178.00m sandstone, fracture	1595m	North East
GW108072	0.00m-0.20m CONCRETE 0.20m-4.50m SANDY CLAY 4.50m-13.90m GRAVELS 13.90m-14.20m SHALE	1603m	South
GW107563	0.00m-0.20m FILL,ROAD BASE 0.20m-4.60m BROWN/RED/SILTY CLAY 4.60m-5.20m LITE BROWN CLAY/GRAVEL 5.20m-13.70m GRAVELS 13.70m-13.90m GREYSHALE	1605m	South

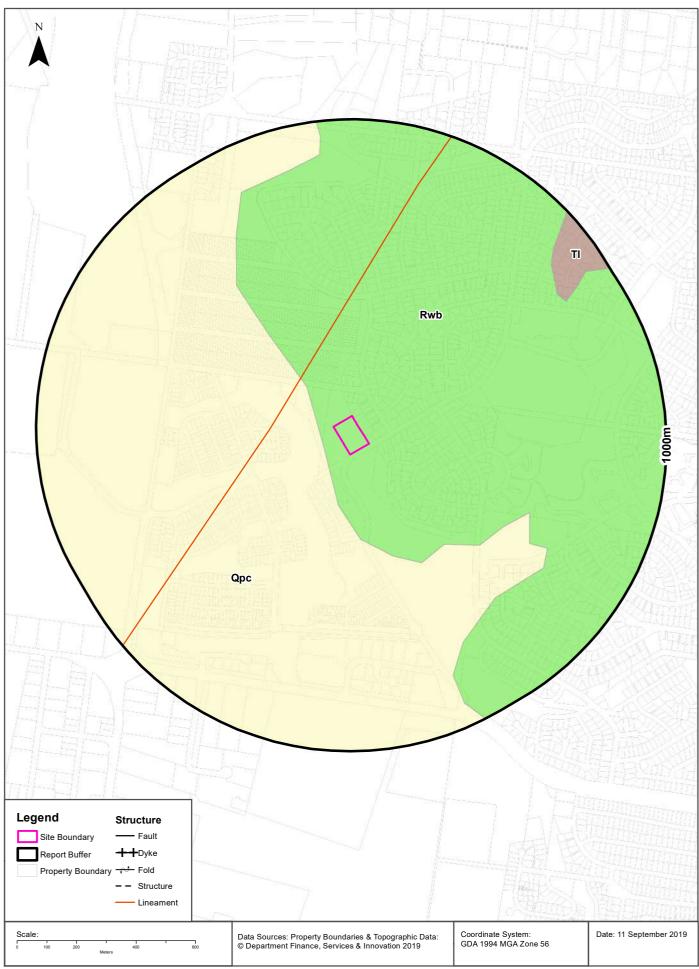
Groundwater No	Drillers Log	Distance	Direction
GW114758	0.00m-0.20m CONCRETE 0.20m-1.50m NON DESTRUCTIVE DRILLING PERFOMED WITH AIR KNIFE AND VACUUM TRUCK 1.50m-5.50m SAND WELL GRADED WITH CLAY 5.50m-7.00m GRAVEL POORLY GRADED WITH SAND 7.00m-7.50m SAND WELL GRADED WITH SILT 7.50m-13.50m SAND POORLY GRADED WITH GRAVEL 13.50m-14.20m SHALE HIGHLY WEATHERED	1620m	South
GW114759	0.00m-0.20m CONCRETE 0.20m-1.50m NON DESTRUCTIVE DRILLING PERFOMED WITH AIR KNIFE AND VACUUM TRUCK 1.50m-3.60m SAND WELL GRADED WITH SILT 3.60m-3.80m GRAVEL POORLY GRADED 3.80m-5.10m SAND WELL GRADED WITH SILT 5.10m-13.70m SAND POORLY GRADED WITH GRAVEL	1621m	South
GW107562	0.00m-0.20m BITUMEN 0.20m-3.60m CLAY 3.60m-14.50m GRAVELS 14.50m-14.60m SHALE	1624m	South
GW107560	0.00m-0.50m FILL,ROCKS 0.50m-5.70m CLAY 5.70m-14.10m GRAVELS 14.10m-14.20m SHALE	1630m	South
GW107761	0.00m-1.00m FILL AND ROCKS 1.00m-5.00m SANDY CLAY 5.00m-7.00m CLAY AND GRAVELS 7.00m-13.60m GRAVELS 13.60m-13.90m SHALE	1634m	South
GW108071	0.00m-0.30m BITUMEN/ROAD BASE 0.30m-5.50m LOAMY CLAY 5.50m-13.80m GRAVELS AND SAND 13.80m-14.10m SHALE	1634m	South
GW107561	0.00m-1.00m FILL 1.00m-4.00m CLAY 4.00m-4.50m GRAVELS 4.50m-6.00m SANDY CLAY 6.00m-14.20m GRAVELS 14.20m-14.30m SHALE	1637m	South
GW107559	0.00m-0.50m FILL/ROCKS 0.50m-6.80m CLAY 6.80m-13.50m GRAVELS 13.50m-13.60m SHALE	1638m	South
GW108899	0.00m-4.50m SANDY CLAY 4.50m-14.30m GRAVELS 14.30m-14.60m SHALE	1645m	South
GW107762	0.00m-0.40m ROAD BASE,FILL 0.40m-5.60m RED,BROWN, SILTY CLAY 5.60m-11.60m GRAVELS	1662m	South West
GW063812	0.00m-4.20m Topsoil Sandy 4.20m-12.60m Gravel 12.60m-14.60m Shale	1781m	South West
GW107307	0.00m-5.80m CLAY 5.80m-13.10m GRAVELS 13.10m-13.20m SHALE	1795m	South West
GW110057	0.00m-5.80m CLAY 5.80m-13.10m GRAVELS 13.10m-13.20m SHALE	1802m	South West
GW108896	0.00m-7.60m SANDY CLAY 7.60m-13.40m GRAVELS 13.40m-13.70m SHALE	1858m	South West
GW067423	0.00m-2.80m Sandy Silts, Clayey Silts, Alluvium	1873m	South West
GW109667	0.00m-4.00m CLAY BROWN 4.00m-5.50m SANDY CLAY 5.50m-13.40m GRAVELS 13.40m-13.70m SHALE GREY	1928m	South West
GW108081	0.00m-1.00m FILL 1.00m-9.60m SANDY CLAY 9.60m-14.00m GRAVELS 14.00m-14.35m SHALE	1943m	South West

Groundwater No	Drillers Log	Distance	Direction
GW105510	0.00m-0.30m TOPSOIL 0.30m-2.70m SANDY CLAY 2.70m-4.50m STIFF CLAY 4.50m-5.70m SMALL GRAVELS 5.70m-14.00m LARGE GRAVELS 14.00m-14.50m SOFT SHALE	1949m	South West
GW102274	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-8.40m Light grey-brown Clay, high plasticity. 8.40m-16.00m Gravel 16.00m-16.50m Shale	1956m	South West
GW102275	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-8.95m Light brown Clay, high plasticity 8.95m-16.40m Gravel 16.40m-16.90m Shale	1956m	South West
GW102278	0.00m-7.20m Sandy Silts and Silty Sands, with some Clay bands, alluvium 7.20m-8.70m Clay and some Gravel 8.70m-15.30m Gravel 15.30m-15.80m Shale	1956m	South West
GW102276	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-9.70m Grey-brown Clay, high plasticity 9.70m-16.80m Gravel 16.80m-17.30m Shale	1957m	South West
GW102279	0.00m-9.00m Silty Sands and Sandy Silts, alluvium 9.00m-15.00m Gravel 15.00m-15.50m Shale	1957m	South West
GW102280	0.00m-4.80m Sandy Silts an Silty Sands, alluvium 4.80m-7.75m Gravel with Clay zones 7.75m-9.55m Clay with Gravel zones 9.55m-15.90m Gravel with Clay zones 15.90m-16.40m Shale	1957m	South West
GW102273	0.00m-4.75m Clayey silts and Sandy Silts, alluvium 4.75m-9.30m Grey-brown Clay, high plasticity, alluvium 9.30m-16.30m Gravel 16.30m-16.80m Shale	1958m	South West
GW102277	0.00m-7.50m Clayey Silts and Sandy Silts with some Clay bands 7.50m-9.50m Light brown Clay 9.50m-10.55m Silty Sand, fine to medium 10.55m-16.40m Gravel 16.40m-16.90m Shale	1959m	South West
GW067492	0.00m-4.50m Silty Clay 4.50m-12.10m Clayey Sand Fine To Coarse Grained, Red-brown. Moist Becoming Wet	1974m	South West
GW067493	0.00m-11.50m Sandy Clay Low Plasticity, Red-brown W/ Some .5m Zones Of Sandy Clay, Brown	1978m	South West

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Geology 1:100,000 103-109 Laycock Street, Cranebrook, NSW 2749





## **Geology**

103-109 Laycock Street, Cranebrook, NSW 2749

## **Geological Units**

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Rwb	Shale, carbonaceous claystone, claystone, laminate, fine to medium- grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferenti ated)		Middle Triassic		Penrith	1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Qpc	Gravel, sand, silt, clay	Cranebrook Formation			Quaternary		Penrith	1:100,000
Rwb	Shale, carbonaceous claystone, claystone, laminate, fine to medium- grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferenti ated)		Middle Triassic		Penrith	1:100,000
TI	Clay, patched of ferruginized, consolidated sand	Londonderry Clay			Tertiary		Penrith	1:100,000

## **Geological Structures**

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
Lineament		Kooree Creek Lineament	Penrith	1:100,000

Geological Data Source: NSW Department of Industry, Resources & Energy © State of New South Wales through the NSW Department of Industry, Resources & Energy

# **Naturally Occurring Asbestos Potential**

103-109 Laycock Street, Cranebrook, NSW 2749

## **Naturally Occurring Asbestos Potential**

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

### **Soil Landscapes**





#### Soils

103-109 Laycock Street, Cranebrook, NSW 2749

### **Soil Landscapes**

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
ERlu	LUDDENHAM		EROSIONAL	Penrith	1:100,000

#### What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
ALbp	BERKSHIRE PARK		ALLUVIAL	Penrith	1:100,000
ALri	RICHMOND		ALLUVIAL	Penrith	1:100,000
DTxx	DISTURBED TERRAIN		DISTURBED TERRAIN	Penrith	1:100,000
ERlu	LUDDENHAM		EROSIONAL	Penrith	1:100,000
WATER	WATER		WATER	Penrith	1:100,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

#### **Atlas of Australian Soils**





#### Soils

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Atlas of Australian Soils**

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
X9	Sodosol	Plains-former river terraces and levees: chief soils are sandy neutral yellow mottled soils (Dy5.42) with leached sands (Uc2.3) on the broader plains. Associated are (Dy3.41, Dy3.42, and Dy3.43) soils, some containing ironstone gravels, in relatively low-lying areas and depressions, and (Dr2.2), (Gn2.15), and (Gn2.18) soils on levees. Areas of other soils, possibly including (Um4.31), occur throughout what is a complex unit. As mapped, areas of units Gb6 and Sp1 are included.	Om
Gb6	Dermosol	Younger river terraces, present flood-plain, and swamps: chief soils are dark friable loamy soils (Um6.11), possibly with some (Gn2.8) soils on the terraces. Associated are various (Um) and (Uc) soils on the flood-plains and swamps. Area is subject to periodic inundation. As mapped, areas of units X9, Mb2, and Sp1 are included.	393m
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low- lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	764m

Atlas of Australian Soils Data Source: CSIRO

 $Creative\ Commons\ 4.0\ \ \textcircled{o}\ Commonwealth\ of\ Australia\ http://creativecommons.org/licenses/by/4.0/au/deed.en$ 

#### **Acid Sulfate Soils**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Environmental Planning Instrument - Acid Sulfate Soils**

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

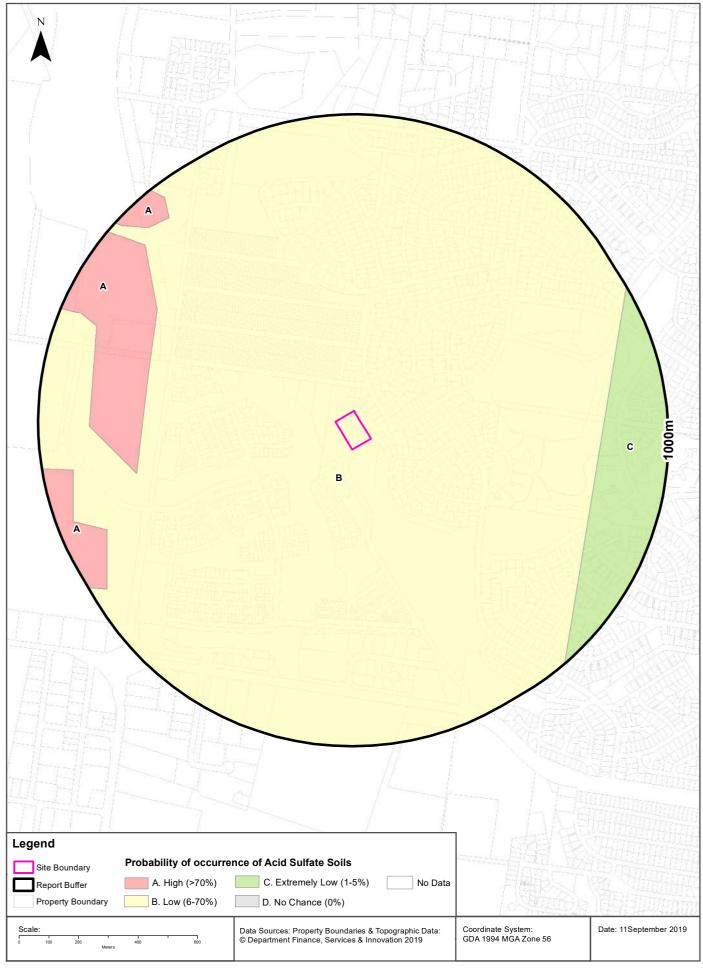
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

Acid Sulfate Data Source Accessed 23/10/2018: NSW Crown Copyright - Planning and Environment Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

#### **Atlas of Australian Acid Sulfate Soils**





#### **Acid Sulfate Soils**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Atlas of Australian Acid Sulfate Soils**

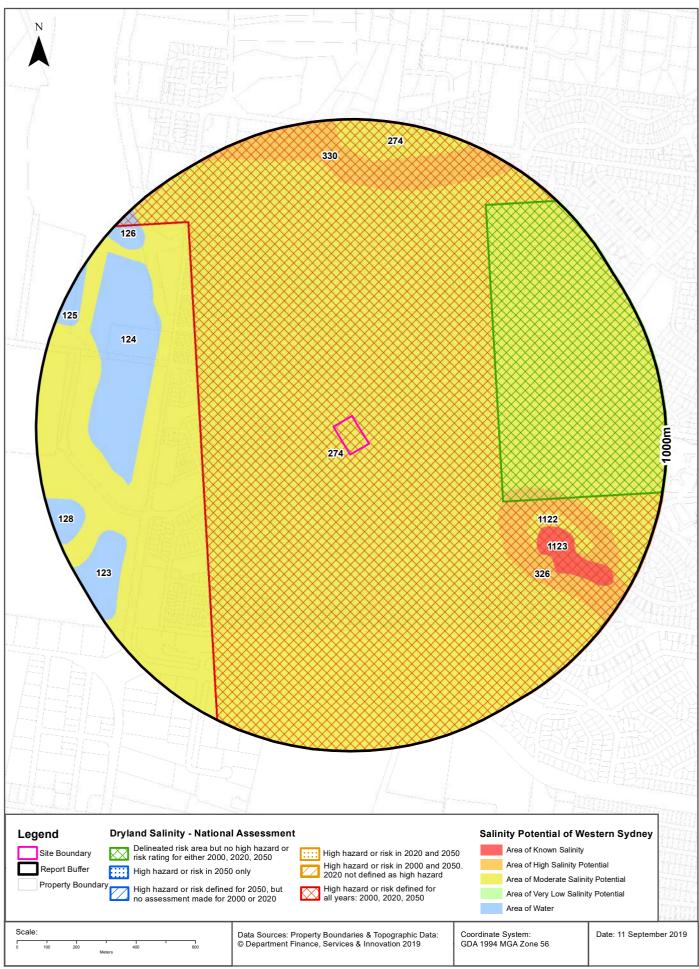
Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
В	Low Probability of occurrence. 6-70% chance of occurrence.	0m
Α	High Probability of occurrence. >70% chance of occurrence.	645m
С	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	762m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

#### **Dryland Salinity**





#### **Dryland Salinity**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Dryland Salinity - National Assessment**

Is there Dryland Salinity - National Assessment data onsite?

#### Yes

Is there Dryland Salinity - National Assessment data within the dataset buffer?

#### Yes

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
High hazard or risk	High hazard or risk	High hazard or risk	0m	Onsite
Delineated risk area but no high hazard or risk rating	Delineated risk area but no high hazard or risk rating	Delineated risk area but no high hazard or risk rating	436m	East

Dryland Salinity Data Source: National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

### **Dryland Salinity Potential of Western Sydney**

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	Onsite
326	HIGH	Area of High Salinity Potential	479m	South East
1122	MODERATE	Area of Moderate Salinity Potential	601m	South East
124	WATER	Area of Water	633m	West
1123	SALT	Area of Known Salinity	643m	South East
330	HIGH	Area of High Salinity Potential	770m	North West
123	WATER	Area of Water	794m	South West
128	WATER	Area of Water	884m	West
126	WATER	Area of Water	886m	North West
125	WATER	Area of Water	931m	North West

Dryland Salinity Potential of Western Sydney Data Source: NSW Office of Environment and Heritage Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

# **Mining Subsidence Districts**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Mining Subsidence Districts**

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

## **State Environmental Planning Policy**

103-109 Laycock Street, Cranebrook, NSW 2749

### **State Significant Precincts**

What SEPP State Significant Precincts exist within the dataset buffer?

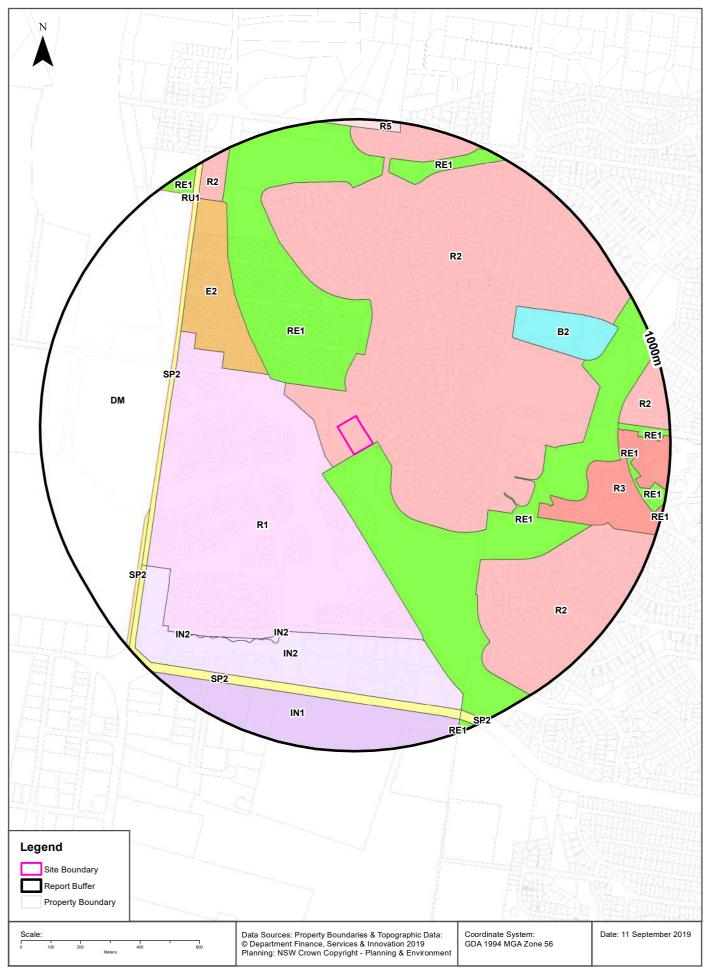
Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No Records in Buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Document Set ID: 9450252 Version: 1, Version Date: 22/01/2021

## **EPI Planning Zones**





# **Environmental Planning Instrument**

103-109 Laycock Street, Cranebrook, NSW 2749

## **Land Zoning**

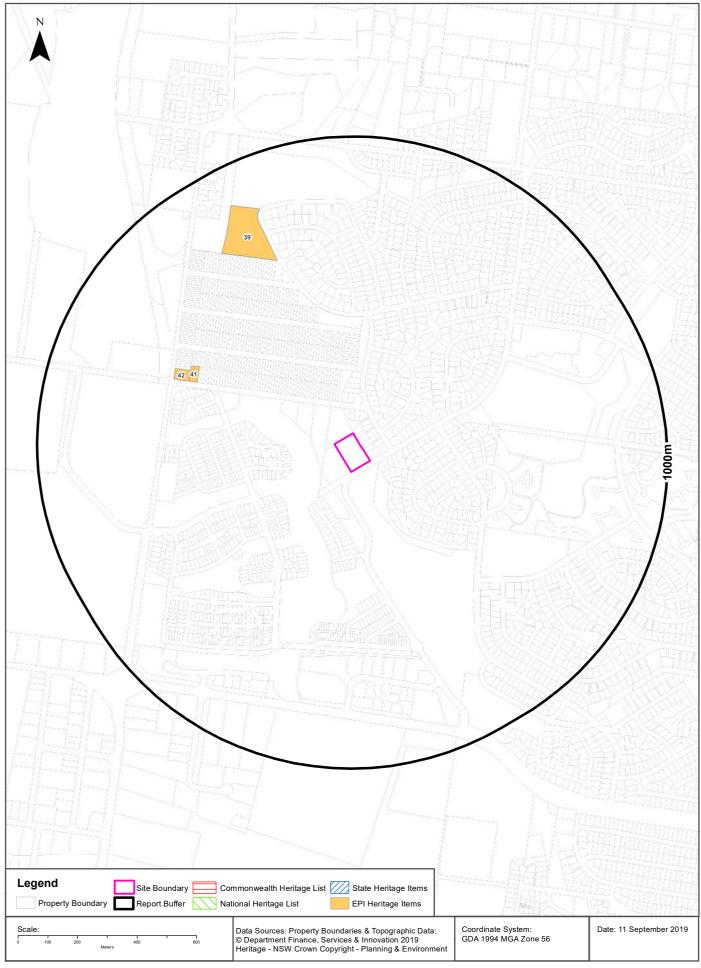
What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R2	Low Density Residential		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	0m	Onsite
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	0m	South East
R1	General Residential		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	72m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	91m	North
E2	Environmental Conservation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	293m	North West
R2	Low Density Residential		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	532m	South East
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	569m	North West
DM	Deferred Matter		Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	26/04/2019	Amendment No 11	584m	North West
B2	Local Centre		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	587m	North East
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	593m	East
IN2	Light Industrial		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	26/04/2019		608m	South
IN2	Light Industrial		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	640m	South West
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	688m	South West
IN2	Light Industrial		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	787m	South West
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	26/04/2019		792m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	804m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	823m	East
IN1	General Industrial		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	26/04/2019		826m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	846m	East
R2	Low Density Residential		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	851m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	852m	East
RU1	Primary Production		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	904m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	923m	North West
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	933m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	961m	South
R5	Large Lot Residential		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	26/04/2019		966m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	26/04/2019	Amendment No 4	990m	East

Environmental Planning Instrument Data Source: NSW Crown Copyright - Planning & Environment Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

#### **Heritage Items**





## Heritage

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Commonwealth Heritage List**

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

#### **National Heritage List**

What are the National Heritage List Items located within the dataset buffer? Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

### **State Heritage Register - Curtilages**

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

## **Environmental Planning Instrument - Heritage**

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
41	Johnsons Cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/08/2017	508m	North West
42	St Thomas Anglican Church (former) & Palm Trees	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/08/2017	534m	North West
39	Olive trees	Item - General	State	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/08/2017	637m	North West

Heritage Data Source: NSW Crown Copyright - Planning & Environment

Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

#### **Natural Hazards - Bush Fire Prone Land**





### **Natural Hazards**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Bush Fire Prone Land**

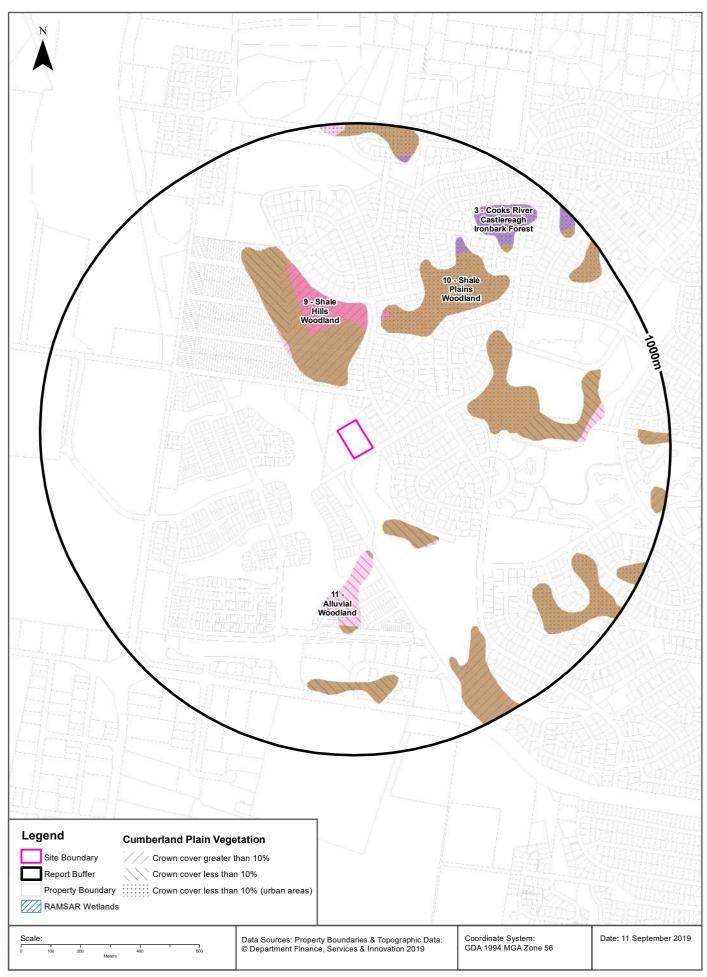
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	12m	South East
Vegetation Category 1	112m	North
Vegetation Category 2	169m	North

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

#### **Ecological Constraints - Remnant Vegetation of the Cumberland Plain**





## **Ecological Constraints**

103-109 Laycock Street, Cranebrook, NSW 2749

### **Remnant Vegetation of the Cumberland Plain**

What remnant vegetation of the Cumberland Plain exists within the dataset buffer?

Description	Crown Cover	Distance	Direction
10 - Shale Plains Woodland	Crown cover greater than 10%	121m	North
10 - Shale Plains Woodland	Crown cover less than 10%	232m	South East
11 - Alluvial Woodland	Crown cover greater than 10%	276m	North West
9 - Shale Hills Woodland	Crown cover greater than 10%	305m	North
10 - Shale Plains Woodland	Crown cover less than 10% (urban areas)	312m	North East
11 - Alluvial Woodland	Crown cover less than 10%	313m	South
9 - Shale Hills Woodland	Crown cover less than 10% (urban areas)	333m	North
3 - Cooks River Castlereagh Ironbark Forest	Crown cover less than 10% (urban areas)	650m	North East
11 - Alluvial Woodland	Crown cover less than 10% (urban areas)	958m	North

Remnant Vegetation of the Cumberland Plain: NSW Office of Environment and Heritage Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

#### **Ramsar Wetlands**

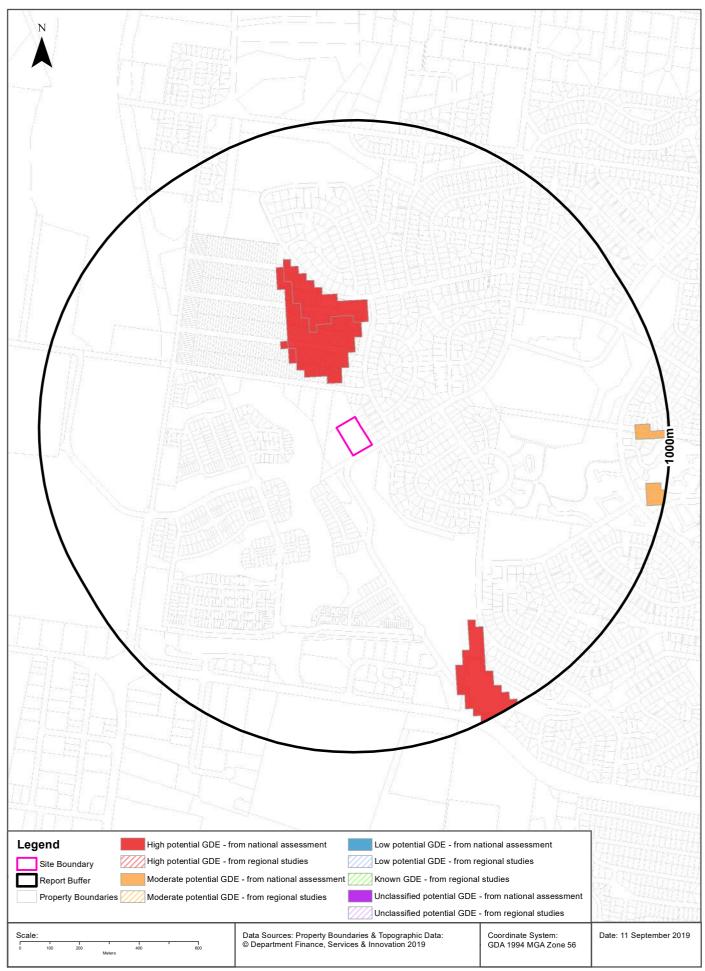
What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Environment

#### **Ecological Constraints - Groundwater Dependent Ecosystems Atlas**





# **Ecological Constraints**

103-109 Laycock Street, Cranebrook, NSW 2749

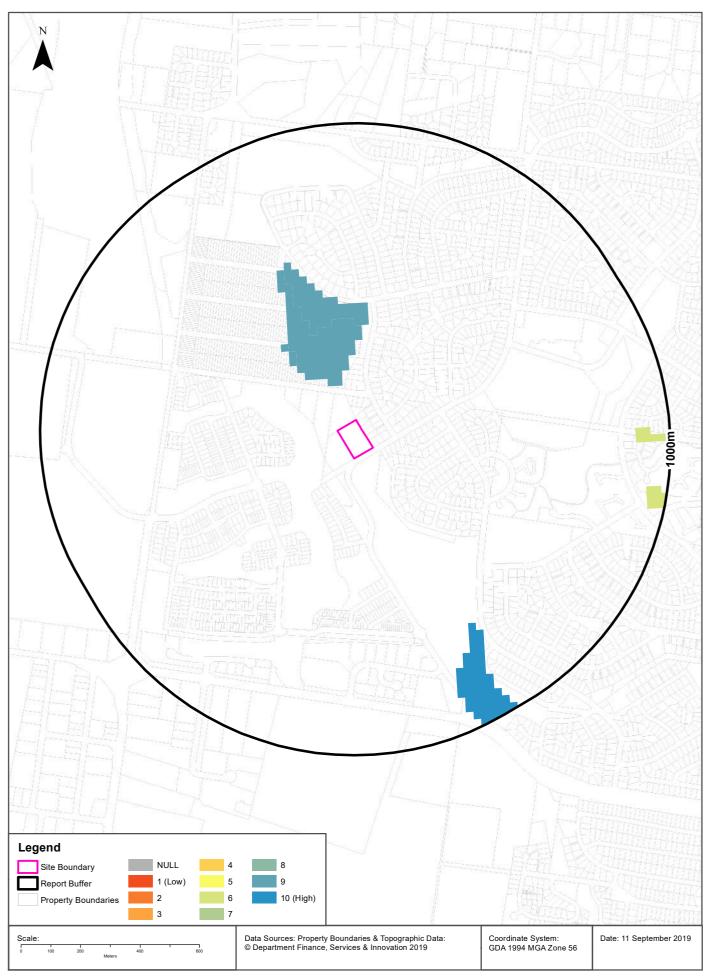
# **Groundwater Dependent Ecosystems Atlas**

Туре	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	124m
Terrestrial	Moderate potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	884m

 $Groundwater\ Dependent\ Ecosystems\ Atlas\ Data\ Source:\ The\ Bureau\ of\ Meteorology$   $Creative\ Commons\ 3.0\ \\ \\ \\ \\ \\ \\ Commonwealth\ of\ Australia\ http://creativecommons.org/licenses/by/3.0/au/deed.en$ 

## **Ecological Constraints - Inflow Dependent Ecosystems Likelihood**





# **Ecological Constraints**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **Inflow Dependent Ecosystems Likelihood**

Туре	IDE Likelihood	Geomorphology	<b>Ecosystem Type</b>	Aquifer Geology	Distance
Terrestrial	9	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	124m
Terrestrial	10	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	671m
Terrestrial	6	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	884m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

# **Ecological Constraints**

103-109 Laycock Street, Cranebrook, NSW 2749

#### **NSW BioNet Atlas**

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amaurornis moluccana	Pale-vented Bush-hen	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardea ibis	Cattle Egret	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone- curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black- Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black- Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Charadrius veredus	Oriental Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Merops ornatus	Rainbow Bee- eater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica rodinogaster	Pink Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Plegadis falcinellus	Glossy Ibis	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Vulnerable	Category 3	Not Listed	, <u>.</u>
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Gastropoda	Meridolum corneovirens	Cumberland Plain Land Snail	Endangered	Not Sensitive	Not Listed	
Animalia	Gastropoda	Pommerhelix duralensis	Dural Land Snail	Endangered	Not Sensitive	Endangered	
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy- possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent- winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascogale tapoatafa	Brush-tailed Phascogale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad- nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Antaresia stimsoni	Stimson's Python	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Eulamprus leuraensis	Blue Mountains Water Skink	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Hoplocephalus bungaroides	Broad-headed Snake	Endangered	Category 2	Vulnerable	
Animalia	Reptilia	Suta flagellum	Little Whip Snake	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue- tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Allocasuarina glareicola		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Grevillea juniperina subsp. juniperina	Juniper-leaved Grevillea	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Not Sensitive	Extinct	
Plantae	Flora	Leucopogon fletcheri subsp. fletcheri		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Marsdenia viridiflora subsp. viridiflora	Native Pear	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Micromyrtus minutiflora		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Persoonia nutans	Nodding Geebung	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Pimelea spicata	Spiked Rice- flower	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Pterostylis saxicola	Sydney Plains Greenhood	Endangered	Category 2	Endangered	
Plantae	Flora	Pultenaea parviflora		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Pultenaea villifera		Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	

Data does not include NSW category 1 sensitive species. NSW BioNet: © State of NSW and Office of Environment and Heritage Data obtained 11/09/2019

#### **USE OF REPORT - APPLICABLE TERMS**

The following terms apply to any person (End User) who is given the Report by the person who purchased the Report from Lotsearch Pty Ltd (ABN: 89 600 168 018) (Lotsearch) or who otherwise has access to the Report (Terms). The contract terms that apply between Lotsearch and the purchaser of the Report are specified in the order form pursuant to which the Report was ordered and the terms set out below are of no effect as between Lotsearch and the purchaser of the Report.

- 1. End User acknowledges and agrees that:
  - (a) the Report is compiled from or using content (Third Party Content) which is comprised of:
    - (i) content provided to Lotsearch by third party content suppliers with whom Lotsearch has contractual arrangements or content which is freely available or methodologies licensed to Lotsearch by third parties with whom Lotsearch has contractual arrangements (Third Party Content Suppliers); and
    - (ii) content which is derived from content described in paragraph (i);
  - (b) Neither Lotsearch nor Third Party Content Suppliers takes any responsibility for or give any warranty in relation to the accuracy or completeness of any Third Party Content included in the Report including any contaminated land assessment or other assessment included as part of a Report;
  - the Third Party Content Suppliers do not constitute an exhaustive set of all repositories or sources of information available in relation to the property which is the subject of the Report (Property) and accordingly neither Lotsearch nor Third Party Content Suppliers gives any warranty in relation to the accuracy or completeness of the Third Party Content incorporated into the report including any contaminated land assessment or other assessment included as part of a Report;
  - (d) Reports are generated at a point in time (as specified by the date/time stamp appearing on the Report) and accordingly the Report is based on the information available at that point in time and Lotsearch is not obliged to undertake any additional reporting to take into consideration any information that may become available between the point in time specified by the date/time stamp and the date on which the Report was provided by Lotsearch to the purchaser of the Report;
  - (e) Reports must be used or reproduced in their entirety and End User must not reproduce or make available to other persons only parts of the Report;
  - (f) Lotsearch has not undertaken any physical inspection of the property;
  - (g) neither Lotsearch nor Third Party Content Suppliers warrants that all land uses or features whether past or current are identified in the Report;
  - the Report does not include any information relating to the actual state or condition of the Property;
  - (i) the Report should not be used or taken to indicate or exclude actual fitness or unfitness of Land or Property for any particular purpose
  - the Report should not be relied upon for determining saleability or value or making any other decisions in relation to the Property and in particular should not be taken to be a rating or assessment of the desirability or market value of the property or its features; and
  - (k) the End User should undertake its own inspections of the Land or Property to satisfy itself that there are no defects or failures
- 2. The End User may not make the Report or any copies or extracts of the report or any part of it available to any other person. If End User wishes to provide the Report to any other person or make extracts or copies of the Report, it must contact the purchaser of the Report before doing so to ensure the proposed use is consistent with the contract terms between Lotsearch and the purchaser.
- 3. Neither Lotsearch (nor any of its officers, employees or agents) nor any of its Third Party Content Suppliers will have any liability to End User or any person to whom End User provides the Report and End User must not represent that Lotsearch or any of its Third Party Content Suppliers accepts liability to any such person or make any other representation to any such person on behalf of Lotsearch or any Third Party Content Supplier.
- 4. The End User hereby to the maximum extent permitted by law:
  - (a) acknowledges that the Lotsearch (nor any of its officers, employees or agents), nor any of its Third Party Content Supplier have any liability to it under or in connection with the

- Report or these Terms;
- (b) waives any right it may have to claim against Third Party Content Supplier in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms; and
- (c) releases each Third Party Content Supplier from any claim it may have otherwise had in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms.
- 5. The End User acknowledges that any Third Party Supplier shall be entitled to plead the benefits conferred on it under clause 4, despite not being a party to these terms.
- 6. End User must not remove any copyright notices, trade marks, digital rights management information, other embedded information, disclaimers or limitations from the Report or authorise any person to do so.
- 7. End User acknowledges and agrees that Lotsearch and Third Party Content Suppliers retain ownership of all copyright, patent, design right (registered or unregistered), trade marks (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right in any Report or any other item, information or data included in or provided as part of a Report.
- 8. To the extent permitted by law and subject to paragraph 9, all implied terms, representations and warranties whether statutory or otherwise relating to the subject matter of these Terms other than as expressly set out in these Terms are excluded.
- 9. Subject to paragraph 6, Lotsearch excludes liability to End User for loss or damage of any kind, however caused, due to Lotsearch's negligence, breach of contract, breach of any law, in equity, under indemnities or otherwise, arising out of all acts, omissions and events whenever occurring.
- Lotsearch acknowledges that if, under applicable State, Territory or Commonwealth law, End User is a consumer certain rights may be conferred on End User which cannot be excluded, restricted or modified. If so, and if that law applies to Lotsearch, then, Lotsearch's liability is limited to the greater of an amount equal to the cost of resupplying the Report and the maximum extent permitted under applicable laws.
- 11. Subject to paragraph 9, neither Lotsearch nor the End User is liable to the other for:
  - any indirect, incidental, consequential, special or exemplary damages arising out of or in relation to the Report or these Terms; or
  - (b) any loss of profit, loss of revenue, loss of interest, loss of data, loss of goodwill or loss of business opportunities, business interruption arising directly or indirectly out of or in relation to the Report or these Terms,

irrespective of how that liability arises including in contract or tort, liability under indemnity or for any other common law, equitable or statutory cause of action or otherwise.

12. These Terms are subject to New South Wales law.