

# Stage 1 Preliminary Site Investigation

**48 CAMPBELL STREET, GERRINGONG, NSW 2534**

Prepared for Allen Price & Scarratts Pty Ltd

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**Interpretation of Data:** Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

**Soil and Rock Descriptions:** Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

**Further Advice:** CS would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).



## Executive Summary

Construction Sciences Pty Ltd (CS) was engaged by Allen Price & Scarletts Pty Ltd, to undertake a stage 1 preliminary site investigation (PSI) for land located at 48 Campbell Street, Gerringong, NSW, 2534 (the property).

At the commencement of this work, CS understood:

- The property is privately owned;
- The property currently rural residential land;
- The property is an irregular shaped parcel of rural residential land, which covers an approximate area of 46 hectares (ha);
- A portion of the property occupying approximately 14ha ('the site') is proposed for redevelopment, into a land use scenario<sup>1</sup> comprising:
  - Residential with accessible soil, including garden with home grown produce contributing less than 10% fruit and vegetable intake (excluding home grown poultry and/or eggs), and includes children's day care centres, preschools and primary schools;
- The proposed land use scenario assumes a reticulated potable water supply will be available at the site; and
- This PSI is required to inform the development consent planning decision making processes referred to in State Environmental Planning Policy (SEPP) No. 55

The objectives of this project were to:

- Assess the potential for contamination to be present at the site, arising from past and present land use activities;
- Provide advice on whether the site is suitable, in the context of land contamination, for the proposed land use scenario; and
- Provide recommendations for supplementary investigations, contamination management, or remedial works.

*For the purpose of addressing the objectives of this project, where the proposed land use includes residential with accessible soil, CS has assumed that home grown produce (fruit and vegetable) consumption is not likely to constitute more than 10% of the diet, and that consumption of home grown poultry and/or eggs is not likely to occur<sup>2</sup>.*

The scope of work undertaken to address the project objectives included:

- A desktop review of site history;
- A walkover of the site; and
- Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013), NSW EPA (2020b), HEPA (2020) and WA DOH (2009).

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<sup>1</sup> Adopted from Section 2.2 of NEPC (2013a) and Section 3 of NEPC (2013e)

<sup>2</sup> Adopted from Section 4.6 of NEPC (2013c).





The identified AEC are presented in Figure 3a and Figure 3b, and the COPC associated with those AEC are presented in the table below.

ID	AEC	Source	COPC
AEC01	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC02	Organic stockpile	Stockpiling of organic matter	Aesthetics
AEC03	Organic stockpile	Stockpiling of organic matter	Aesthetics
AEC04	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC05	Building waste (brick/concrete) stockpile	Stockpiling of building waste (brick/concrete)	Aesthetics and asbestos
AEC06	Sand stockpile	Stockpiling of sand	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC07	Soil Stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC08	Soil Stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC09	Raised garden bed	Stockpiling of soil for garden use	Hydrocarbons, pesticides, metals, asbestos
AEC10	Raised garden bed	Stockpiling of soil for garden use	Hydrocarbons, pesticides, metals, asbestos
AEC11	Raised garden bed	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC12	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC13	Fill area 1	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC14	Fill area 2	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC15	Fill area 3	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC16	Fill area 4	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC17	Fill area 5	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos



ID	AEC	Source	COPC
AEC18	Fill area 6 (footprint of machinery shed and areas immediately surrounding the shed)	Historical uncontrolled filling, Plant laydown.	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC19	Fill area 7 (footprint of former dairy building)	Historical uncontrolled filling; Storage and handling of lice and tick treatments; Use of hazardous building materials; Livestock effluent; and Termite treatment.	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC20	Fill area 8	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC21	Fill area 9 (footprint of residential dwelling and attached sheds within the central east portion of the site)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC22	Fill area 10 (shed and storage area)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC23	Fill area 11 (shed)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC24	Fill area 12 (footprint of residential dwelling to the north)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC25	Fill area 13 (dam wall)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC26	Septic system	Handling and storage of domestic waste effluent	Hydrocarbons, metals, pathogens
AEC27	Dam water	Handling and storage of surface water	Hydrocarbons, metals, nutrients, pathogens
AEC28	Livestock holding pen	Storage and handling of lice and tick treatments; and Livestock effluent.	Hydrocarbons, pesticides, pathogens, nutrients
AEC29	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos



ID	AEC	Source	COPC
AEC30	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC31	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC32	Historical farming area	Use of chemicals in farming practices	Hydrocarbons, pesticides, metals
AEC33	Asphalt / gravel roadway	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos

Based on CS' assessment of desktop review information and fieldwork observations, CS makes the following conclusions:

- There is a potential for contamination to be present at the site, arising from past and present land use activities;
- Thirty-three areas of environmental concern have been identified for the site; and
- The site could be made suitable for the proposed land use scenario, subject to the identified AEC being further assessed, and identified unacceptable human health and ecological exposure risks being managed and/or remediated.

Based on these conclusions, CS makes the following recommendations:

- A stage 2 detailed site investigation (DSI) should be undertaken at the site to further assess potential contamination risks associated with the identified areas of environmental concern, and to further assess the suitability of the site, from a contamination perspective, for the proposed land use; and
- The stage 2 DSI should be undertaken by a suitably experienced environmental consultant.

This report must be read in conjunction with the **Information About This Report** page at the front of this report.





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Figure 1: Site Locality

Figure 2: Site Layout

Figure 3a: Areas of Environmental Concern

Figure 3b: Areas of Environmental Concern



# Appendices

Appendix A DETAILED SURVEY

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Appendix B GROUNDWATER

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Appendix C EPA

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Appendix D PLANNING CERTIFICATE

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Appendix E TITLES

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Appendix F BUREAU OF METEOROLOGY





## 1. Introduction

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### 1.1 Background

Construction Sciences Pty Ltd (CS) was engaged by Allen Price & Scarletts Pty Ltd, to undertake a stage 1 preliminary site investigation (PSI) for land located at 48 Campbell Street, Gerringong, NSW, 2534 (the property).

At the commencement of this work, CS understood:

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  - Residential with accessible soil, including garden with home grown produce contributing less than 10% fruit and vegetable intake (excluding home grown poultry and/or eggs), and includes children's day care centres, preschools and primary schools;
- The proposed land use scenario assumes a reticulated potable water supply will be available at the site; and
- This PSI is required to inform the development consent planning decision making processes referred to in State Environmental Planning Policy (SEPP) No. 55.

### 1.2 Objectives

The objectives of this project were to:

- Assess the potential for contamination to be present at the site, arising from past and present land use activities;
- Provide advice on whether the site is suitable, in the context of land contamination, for the proposed land use scenario; and
- Provide recommendations for further investigations, contamination management, or remedial works.

*For the purpose of addressing the objectives of this project, where the proposed land use includes residential with accessible soil, CS has assumed that home grown produce (fruit and vegetable) consumption is not likely to constitute more than 10% of the diet, and that consumption of home grown poultry and/or eggs is not likely to occur<sup>4</sup>.*

### 1.3 Scope of Work

The scope of work undertaken to address the project objectives included:

- A desktop review of site history;

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<sup>3</sup> Adopted from Section 2.2 of NEPC (2013a) and Section 3 of NEPC (2013e)

<sup>4</sup> Adopted from Section 4.6 of NEPC (2013c).



- A walkover of the site; and
- Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013), NSW EPA (2020b), HEPA (2020) and WA DOH (2009).



## 2. Site Identification

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### 2.1 Site Locality

The locality of the site is presented in Figure 1.

The property is located within Kiama local government area, in the rural outskirts of Gerringong.

### 2.2 Site Layout

The site covers an area of approximately 14 hectares (ha).

The general layout of the site is present in Figure 2. The layout plan also includes locations on site of:

- Established site access points;
- Current residential dwellings; and
- Surface water bodies on site and immediately adjacent to the site.

### 2.3 Lot Number and Deposited Plan

The site is identified as a portion of Lot 2 in DP 1168922.

### 2.4 Local Government Authority

The local government authority for the site is the Kiama Municipal Council.

### 2.5 Zoning

A Section 10.7 (2) planning certificate for the site indicates that the site is currently zoned RU2 Rural Landscape.

### 2.6 Geographic Coordinates

The geographic coordinates of the general centre of the site obtained from Google Earth were 34°45'0.63" S and 150°48'56.36" E.

### 2.7 Detail and Level Survey

A copy of a detail and level survey of the site is presented in Appendix A.





### 3. Geology, Topography, Elevation, Hydrogeology, Hydrology and Acid Sulfate Soils

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#### 3.1 Geology

The Department of Mineral Resources Geological Survey of NSW Wollongong 1:250,000 Geological Series Sheet SI 56-9 (Edition 2) 1966, indicated that the site is likely to be underlain by Gerringong Volcanics comprising of latite and alluvium, gravel, swamp deposits and sand dunes (Qal).

#### 3.2 Topography and Elevation

A detail and level survey plan of the site indicated that:

- the centre of the site is located on a ridge with fall towards the east and west;; and
- the surface elevation of the centre of the site was approximately 28m Australian Height Datum (AHD) and that of eastern and western boundaries were approximately 12m AHD and 10m AHD respectively.

#### 3.3 Hydrogeology and Hydrology

A review of the all Groundwater Map accessed on <https://realtime.data.watarnsw.com.au/water.stm> reported that there were three registered groundwater features located within an approximate 500m radius of the centre of the site. Authorised uses of these monitoring wells included:

- Domestic;
- Irrigation; and
- Stock.

Summary information presented for these registered groundwater monitoring wells, indicated that the depth to standing water level in those wells ranged from 0.7m to 7.70m. Registered groundwater monitoring well boreholes were drilled to depths of between 5.48m and 82.90m below ground level.

The geology encountered during drilling (using rotary and cable tool methods) included TOPSOIL, CLAY, GRAVEL, Clayey SAND, Gravely SAND, SHALE, and the volcanic rocks BASALT and GRANITE.

A copy of the search record is presented in Appendix B.

A review of readily available maps held on file by CS, indicated that surface water bodies near the site included:

- Tributaries of Crooked River along the eastern boundary and at approximately 50m from the western boundary of the site. These tributaries were generally flowing towards the south.

Based on the location of the identified surface water courses and site topography, it was not possible to predict the inferred groundwater flow direction. However, based on the flow direction of the Crooked River tributaries and the steeper slope towards the western direction, the groundwater flow direction is considered likely to be towards the south-west.

Based on site surface topography and elevation, the inferred general surface water flow direction on the site is considered likely to be mainly towards east and west from the centre of the site.



### 3.4 Acid Sulfate Soils

A review of the NSW Department of Land and Water Conservation's Acid Sulfate Soil Risk Map for Gerroa (Edition 2, 1997), indicated that:

- the site is located in a map class description of 'no known occurrence' where acid sulfate soils are not known or expected to occur in these environments; and
- land management activities are not likely to be affected by acid sulfate soil materials.

Further assessment of acid sulfate soils, in the context of this project is considered not warranted.



## 4. Regulatory Records

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### 4.1 Contaminated Land Management (CLM) Act 1997

#### 4.1.1 [Record of Notices](#)

A search of the NSW EPA online contaminated land record of notices indicated that the site (and land located immediately adjacent to the site) was not the subject of:

- orders made under Part 3 of the Contaminated Land Management Act 1997;
- notices available to the public under section 58 of the CLM Act;
- an approved voluntary management proposal under the CLM Act that has not been fully carried out and where NSW EPA approval has not been revoked;
- site audit statements provided to the NSW EPA under section 53B of the CLM Act that relate to significantly contaminated land;
- where practicable, copies of anything formerly required to be part of the public record; or
- actions taken by NSW EPA (or the previous State Pollution Control Commission) under section 35 or 365 of the Environmentally Hazardous Chemicals Act 1985.

A copy of the search record is presented in Appendix C.

#### 4.1.2 [Register of Notified Sites](#)

A search of the NSW EPA online list of NSW contaminated sites notified to NSW EPA indicated that the site (and land located immediately adjacent to the site) was not on the list.

A copy of a relevant extract of the search record is presented in Appendix C.

### 4.2 Protection of the Environment Operations (POEO) Act 1997

#### 4.2.1 [Register of Licences, Applications, Notices, Audits or Pollution Studies and Reduction Programs](#)

A search of the NSW EPA online POEO public register indicated that the site (and land located immediately adjacent to the site) was not the subject of a licence, application, notice, audit, pollution study or reduction program.

A copy of the search record is presented in Appendix C.

### 4.3 Environmental Planning and Assessment (EP&A) Act 1979

#### 4.3.1 [Section 10.7 Planning Certificate](#)

A copy of the planning certificate issued under section 10.7(2) of the EP&A Act was obtained, and indicated that, within the meaning of the CLM Act, the site was not:

- significantly contaminated land;
- subject to a management order;
- the subject of an approved voluntary management proposal;

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<sup>5</sup> Sections 35 and 36 of the Environmentally Hazardous Chemicals Act 1985 have been repealed. Notices under these sections are treated by the CLM Act as management orders.



- subject to an ongoing maintenance order; or
- the subject of a site audit statement.

A copy of the certificate is presented in Appendix D.

## 4.4 Work Health and Safety (WHS) Regulation 2017

### 4.4.1 [Schedule 11 Hazardous Chemicals](#)

A site search with SafeWork NSW for Schedule 11 hazardous chemicals (dangerous goods)<sup>6</sup> on the site was not undertaken.

CS' review of historical aerial photography and historical land title ownership records (refer Sections 5.1 and 5.2 of this report), did not indicate a potential for licensable quantities of Schedule 11 hazardous chemicals (dangerous goods) to have been stored on the site.

CS considers that further assessment of the storage of licensable quantities of Schedule 11 hazardous chemicals (dangerous goods), within the context of this project, is considered not warranted.

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<sup>6</sup> Under the Work Health and Safety Regulation



## 5. Site History

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### 5.1 Aerial Photography

A selection of historical aerial photographs of the site, were reviewed. A copy of each historical aerial photograph reviewed is presented below.

**Image 5.1.1 View of 1949 historical photograph**





**Image 5.1.2 View of 1963 historical photograph**



**Image 5.1.3 View of 1972 historical photograph**







**Image 5.1.4 View of 1979 historical photograph**



**Image 5.1.5 View of 1984 historical photograph**





**Image 5.1.6 View of 1993 historical photograph**



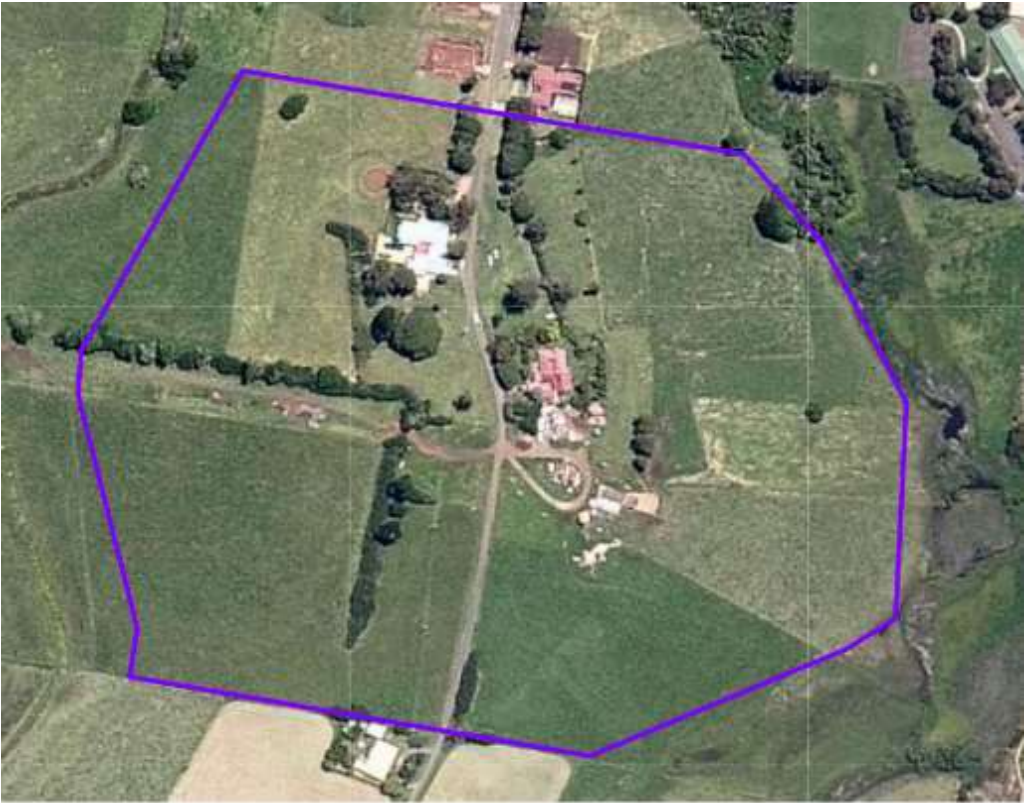
**Image 5.1.7 View of 2005 historical photograph**







**Image 5.1.8 View of 2010 historical photograph**



**Image 5.1.9 View of 2020 historical photograph**





Observations made during that review (considered relevant to this project) are presented in Table 5.1.

**Table 5.1 Aerial Photography**

Photo Date	Site Observations	Surrounding Land Observations
1949	<p>The site appears to be a rural residential property.</p> <p>Scattered buildings likely to comprise residential dwellings and sheds are evident in the central northern, central eastern, south eastern and south central areas of the site.</p> <p>What appears to be ground clearance is also seen within the south-western corner of the site</p>	The land surrounding the site appears to comprise rural residential.
1963	<p>Slight increase in the number of buildings/dwellings onsite.</p> <p>What appears to be a dirt road is seen running in a north-south direction across the site.</p>	No significant change since previous image.
1972	<p>Some buildings/sheds located within the south eastern area of the site appears to have been demolished.</p> <p>Large portion of land located to the west of the dirt roadway appears to have been disturbed, likely for agricultural purposes.</p>	The property to the south appears to have been redeveloped for agricultural purposes.
1979	No significant change since previous image with the exception of what appears to be dwelling present within the southern portion of the site.	Residential building appears adjacent to the north of the site.
1984	No significant change since previous image.	No significant change since previous image.
1993	Roadway running down the centre of the site in a north-south direction appears to have been covered with hardstand asphalt.	Residential building appears adjacent to the south of the site.
2005	<p>Building located within the southern portion of the site (as seen in 1979 photo) appears to have been demolished.</p> <p>A dam is present within the north-western portion of the site (i.e. to the north west of a dwelling within the northern portion of the site).</p>	Residential development appearing to the east and north east of the site.



Photo Date	Site Observations	Surrounding Land Observations
2010	Some buildings/sheds located within the central-eastern portion of the site appears to have been demolished. No other significant change since the previous image.	There appears to be an increase in residential development to the north and east of the site.
2021	Additional buildings have been constructed in areas where demolished buildings were observed in 2010 image. The number of buildings on site and their layout appears to be similar to the layout of existing buildings onsite.	Significant change in land use to the north. The previously seen vacant lands have been converted into low-density residential. There also appears to have been increase in residential land use to the east.

The review of historical aerial photography indicated a potential for land contaminating activities to have been undertaken on the site, specifically:

- Farming agricultural activities between 1949 to 2021;
- Demolition of historical buildings onsite and construction of new buildings;
- Construction of roadway (i.e. potential use of imported fill);
- Construction of dam.

Further assessment of these identified potential land contaminating activities, in the context of other historical evidence reviewed during this project, and observations made during the site walkover (refer Section 6 of this report), is considered warranted.

## 5.2 Historical Land Titles

Historical land title ownership records of the site, were reviewed. Observations made during that review (considered relevant to this project), indicated that registered proprietors of the site since 1912, have included:

- private individuals between 1912 and 1929;
- a farmer between 1929 and 1968;
- private individuals between 1968 and 1974;
- Sunnymead Holdings Pty Ltd between 1974 and 2004; and
- Private individuals from 2004 to date.

There was one lease reported for the site, including:

- A lease to private individuals from 1953 and 1965.

There were two easements reported for the site, including:

- 26.09.1928 - B802857 - Right of way 10.06 metres wide; and
- 13.10.2004 - AB1032 - Easement for sewerage purposes 3 metres wide.

The review of historical land titles indicated a potential for land contaminating activities to have been undertaken on the site, specifically:

- Potential farming between 1929 and 1968.



Further assessment of these identified potential land contaminating activities, in the context of other historical evidence reviewed during this project, and observations made during the site walkover (refer Section 6 of this report), is considered warranted.

A copy of the historical land title search record is presented in Appendix E

### 5.3 Local Meteorology

The Bureau of Meteorology website (<http://www.bom.gov.au/climate/data/index.shtml?bookmark=200>) was accessed and a search conducted for climatic information measured by the nearest bureau station to the site<sup>7</sup>. A summary of data obtained from that search is presented in Table 5.3.

**Table 5.3 Local Meteorology**

Nearest Weather Station Location and Number	Mean Annual Temperature (°C)		Mean Annual Rainfall (mm)
	Maximum	Minimum	
Kiama (Bombo Headlands) - 068242	21.4	14.6	1037.3

The search record is presented in Appendix F.

### 5.4 Complaints

There was no evidence provided to CS during the project, regarding historical complaints about the site.

### 5.5 Incident Reports

There was no evidence provided to CS during the project, regarding historical incidents at the site.

### 5.6 Previous Contamination Assessments

There were no copies of previous contamination assessments provided to CS during the project.

### 5.7 Anecdotal Evidence

CS consultant had a brief conversation with the site owner prior to the consultant undertaking the site walkover. The owner advised that the site was previously used as a dairy farm and is currently used for beef cattle. The owner further advised that there were no burial pits located on the site.

<sup>7</sup> Nearest station to have both rainfall and temperature data.





## 6. Site Condition

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A site walkover was undertaken by a suitably experienced environmental consultant from CS (Sam Scully), on 6 September 2021. During the site walkover, observations were made of land use activities being undertaken on the site, as well as on the properties located immediately adjacent to the site. Information on these observations are presented in the following sub-sections.

### 6.1 Current Land Use

The land use scenario at the time of the walkover appeared to be rural residential.

### 6.2 Buildings, Infrastructure and Surfaces

The following buildings were observed during the walkover:

- Two separate single storey residential dwellings, located in the north-western and central east portions of the site;
- One single story building and feed silo that appeared to have been used for dairy farm practices, located in the central east portion of the site, to the south of the central east dwelling; and
- Two single storey metal clad sheds located within the central west portion of the site, to the south of the north west dwelling; and
- One machinery shed (storing plant equipment) located in the central east portion of the site, to the south of the central east dwelling.

The following infrastructure was observed during the walkover:

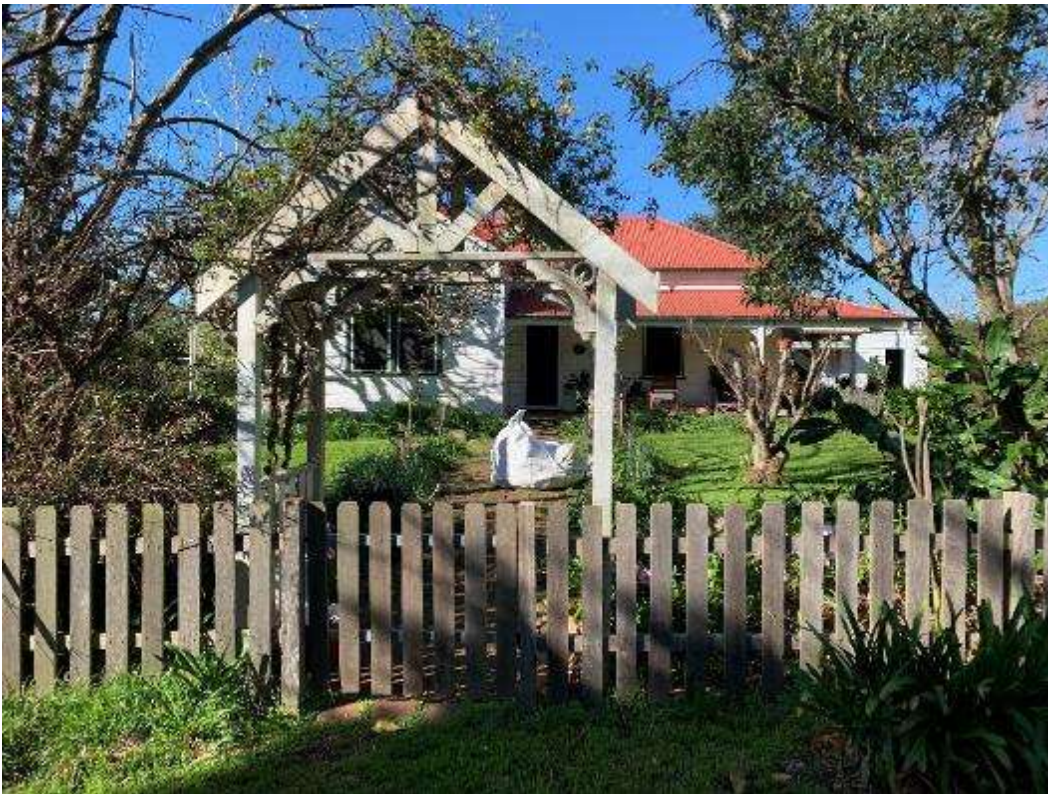
- Nine metal storage containers were observed within the central portion of the site, to the south and south east of the central east dwelling;
- One plastic rainwater tank was observed within the central portion of the site, to the south east of the central east dwelling;

The following site surfaces were observed during the walkover:

- An asphalt road runs in a north-south direction approximately bisecting the site in two halves;
- A dirt roadway runs in an east-west direction through the central portion of the site, as well as other trails around the residential dwellings;
- Aggregate gravels form the site surface underneath and in front of the machinery shed;
- Livestock impacted surface (livestock effluent / footprint) located within the eastern portion of the site; and
- The remainder of the site was unsealed and vegetated with overgrown grasses and weeds.



**Image 6.2.1 View of residential dwelling located in the central portion of the site looking south**



**Image 6.2.2 View of historical dairy farm building and feed silo located in the central portion of the site looking north**







**Image 6.2.3 Second view of historical dairy farm building and feed silo located in the central portion of the site looking south**



**Image 6.2.4 View of machinery shed and stored plant materials located in the central portion of the site looking southeast**







**Image 6.2.5 View of two single storey metal clad sheds located in the central portion of the site looking west**



**Image 6.2.6 View of metal storage containers observed within the central portion of the site looking north**







**Image 6.2.7 View of plastic rainwater tank observed within the central portion of the site looking north east**



**Image 6.2.8 View of livestock impacted soils observed within the eastern portion of the site looking north west**







**Image 6.2.9 View of asphalt roadway observed within the central portion of the site looking north**







### 6.3 Site Boundaries

The north and south boundaries of the site were fenced. The east and west boundaries of the site were not fenced.

### 6.4 Surface Water and Drainage

There was one dam observed on site, located in the north western portion of the site. The dam appeared to be fed by rainwater. There was no algae, sheen, odour or staining observed within the dam water located on the site.

There were intermittent creek lines observed to run in a general north-south direction, located outside the east and west boundaries of the site.

Based on observations made during the walkover, site drainage mechanisms on site are considered likely to include:

- Infiltration into site soils, if soil permeability allows it;
- Overland surface flow following site topography to surrounding creek lines; and
- Inflow to downpipes attached to building roofs and gutters, rainwater tanks.

**Image 04.1 View of dam observed within the north-western portion of the site looking south west**





**Image 04.2 View of creek line located outside of the western site boundary looking north**



## **6.5 Staining and Odours**

There was no visual evidence observed of significant or widespread staining on the surface of the site.

There was no olfactory evidence detected of significant or widespread odours at the site.

## **6.6 Chemical Inventory, Handling and Storage**

There was no visual evidence of the handling and storage of chemicals onsite.

## **6.7 Aboveground and Underground Storage Tanks**

There was no visual evidence observed during the walkover of aboveground storage tanks (AST) or underground storage tanks (UST).

## **6.8 Onsite Septic Systems**

Two septic systems and associated infrastructure were observed adjacent to the western side of the residential dwelling located in the central north portion of the site. A spray area from the observed septic system was not determined





CS could not confirm the presence of a septic system connected to the residential property located in the central east portion of the site. However, it is assumed that a second septic system and spray are likely to be located onsite.

**Image 6.8.1 View of septic systems observed on the site**



## 6.9 Wastes

There was visual evidence observed during the walkover, to indicate the storage of wastes on the site, specifically wood, bricks, steel and plastics.

There were 15 stockpiles of waste and/or soil observed at the site, herein referred to as Stockpile 1 to Stockpile 15.

- Stockpile 1 was located within the western portion of the site and was estimated to comprise approximately 200m<sup>3</sup> in volume of soil.
- Stockpile 2 was located within the western portion of the site and was estimated to comprise approximately 50m<sup>3</sup> in volume of organic material (tree branches etc).
- Stockpile 3 was located within the western portion of the site and was estimated to comprise approximately 25m<sup>3</sup> in volume of organic material (tree branches etc).
- Stockpile 4 was located within the western portion of the site and was estimated to comprise approximately 50m<sup>3</sup> in volume of soil.
- Stockpile 5 was located within the central portion of the site and was estimated to comprise approximately 10m<sup>3</sup> in volume of building and demolition waste (brick/concrete).





- Stockpile 6 was located within the central portion of the site and was estimated to comprise approximately 50m<sup>3</sup> in volume of sand.
- Stockpile 7 was located within the eastern portion of the site and was estimated to comprise approximately 5m<sup>3</sup> in volume of soil.
- Stockpile 8 was located within the eastern portion of the site and was estimated to comprise approximately 5m<sup>3</sup> in volume of soil.
- Stockpile 9 was located within the north eastern portion of the site and was estimated to comprise approximately 10m<sup>3</sup> in volume of soil in the form of raised garden beds.
- Stockpile 10 was located within the north eastern portion of the site and was estimated to comprise approximately 15m<sup>3</sup> in volume of soil in the form of raised garden beds.
- Stockpile 11 was located within the north east portion of the site and was estimated to comprise approximately 25m<sup>3</sup> in volume of soil in the form of raised garden beds.
- Stockpile 12 was located within the western portion of the site and was estimated to comprise approximately 20m<sup>3</sup> in volume of soil.

**Image 6.89.1 View of stockpile 1 located within the western portion of the site looking south east**







**Image 6.89.2 View of organic stockpile 2 was located within the western portion of the site looking east**



**Image 6.89.3 View of building waste (brick/concrete) stockpile 5 located within the central east portion of the site looking east**







## 6.10 Hazardous Materials

There was visual evidence observed during the walkover, of potential asbestos containing materials within the building waste (brick/concrete) stockpile 5, located within the central portion of the site.

A hazardous building materials survey was not within the scope of this project.

**Image 6.10.1 View of fibrous cement fragment observed within building waste (brick/concrete) stockpile 5**



## 6.11 Fill Material

There was visual evidence of filling observed at ten locations onsite during the walkover. The filling areas are referred to as fill area 1 to fill area 10, in this report.

- Fill Area 1 was located within the central north portion of the site covering approximately 80m<sup>2</sup> surface area and likely to contain fill (and surface waste) to a depth of approximately 0.5m bsl.
- Fill area 2 was located within the central east portion of the site covering approximately 550m<sup>2</sup> surface area and likely to contain fill (and surface waste) to a depth of approximately 0.5m bsl.
- Fill area 3 was located within the central east portion of the site covering approximately 180m<sup>2</sup> surface area and likely to contain fill (and surface waste) to a depth of approximately 0.5m bsl.
- Fill area 4 was located within the central west portion of the site covering approximately 120m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.





- Fill area 5 was located within the central west portion of the site covering approximately 50m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 6 was located within the central east portion of the site covering approximately 850m<sup>2</sup> surface area and likely to contain fill to a depth of approximately 1.5m bsl.
- Fill area 7 was located within the central east portion of the site covering approximately 100m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 8 was located within the central east portion of the site covering approximately 550m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 9 was located within the central east portion of the site covering approximately 750m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 10 was located within the central north portion of the covering approximately 100m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 11 was located within the central north portion of the site covering approximately 50m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 12 was located within the central north portion of the site covering approximately 950m<sup>2</sup> surface area and likely to contain fill to a depth of approximately <0.5m bsl.
- Fill area 13 was located within the central north portion of the site covering approximately 200m<sup>2</sup> surface area and likely to contain fill to a depth of approximately 1.0m bsl.

**Image 6.811.1 View of Fill area 3 located within the central portion of the site looking north**







**Image 6.811.2 View of Fill area 1 located within the central north portion of the site looking east**



**Image 6.211.3 View of fill area 6 located within the central east portion of the site looking west**







## 6.12 Phytoxicity

There was no visual evidence observed to suggest widespread or significant phytotoxic impact in the form of plant stress and/or dieback in vegetation present on the site. Similar observations were made of vegetation on land immediately beyond the site boundaries.

**Image 6.12.1 View of vegetation with a healthy appearance onsite**



## 6.13 Activities on Adjacent Land

Observations made from the site boundary, indicated land use activities on adjacent properties were comprised of the following:

- North – low density residential;
- East – tributary of Crooked River and low density residential further to the east;
- West – undeveloped (part of the property; and
- South – undeveloped / rural residential.



## 7. Emerging Contaminants of Concern and Chemical Control Orders

### 7.1 Per and Poly-Fluoroalkyl Substances (PFAS)

Per and Poly-Fluoroalkyl Substances (PFAS) are a group of chemicals that are manufactured for their unique properties. There are numerous PFAS that may be present in the environment. Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) are two major PFAS, that were originally found as components in products used to provide stain resistance or as firefighting foams.

Some PFAS have been recognised as highly persistent, potentially bio-accumulative and toxic, and have been detected in the environment, wildlife, people and food.

Based on the guidance provided in Section 6 of HEPA (2020), which advises that consideration should be given to identifying the presence of:

- Major primary sources of PFAS, including major commercial, industrial and government facilities, infrastructure and activities that historically or currently use or store PFAS containing products, nothing that all PFAS formulations should be considered, such as surfactants used in chrome plating or firefighting, hydraulic fluids and lubricants, and wastes and liquid wastes;
- Other primary sources where PFAS is or has been used, such as firefighting training facilities, foam deluge system installations, metal plating works, car washes, and electricity generation and distribution facilities; and
- Secondary sources where diffuse PFAS inputs are or have been received, such as landfills, wastewater treatment facilities, liquid waste treatment facilities, and bio-solids stockpiles.

As such, CS has adapted a PFAS decision matrix presented in EnRisk (2016), along with the aforementioned guidance in Section 6 of HEPA (2020) to facilitate an assessment of the potential for PFAS to be present on site. The decision matrix is presented in Table 7.1.

**Table 7.1 Adapted PFAS Decision Matrix**

Preliminary PFAS Screening Question	Decision
Is there evidence of major commercial, industrial and government facilities, infrastructure and activities that historically or currently use or store PFAS containing products?	No
Is there evidence of fuel <sup>8</sup> fires on the site?	No
Is there evidence of foam deluge systems, metal plating works, car washes, or electricity generation / distribution on the site?	No
Is there evidence of landfill, waste water treatment, liquid waste treatment, bio-solid stockpiles or paper mill wastes on site?	No
Is there evidence of fire training occurring at the site?	No
Is there evidence of fire training occurring up gradient or adjacent to the site?	No
Is there evidence of the presence of an airport or fire station, up-gradient of, or adjacent to, the site?	No

<sup>8</sup> Fuels could include solvents, petrol, diesel and kerosene.





Based on the results of the preliminary PFAS screening questions above, further assessment of PFAS related land contamination risks at the site, is considered not warranted.

## 7.2 Chemical Control Orders

Chemical control orders (CCO) are created under Part 3, Division 5 of the Environmentally Hazardous Chemicals Act 1985, and are used to selectively and specifically control particular chemicals or chemical wastes to limit their potential or actual impact on the environment. CS uses the decision matrix presented in Table 7.2 (based on the NSW EPA CCO available at the time of this project), to facilitate an assessment of the potential for those control chemicals to be present on site.

**Table 7.2 CCO Decision Matrix**

Preliminary CCO Screening Question	Decision
Were aluminium smelter wastes used or stored on site? <sup>9</sup>	No
Were dioxin contaminated wastes generated or stored on site? <sup>10</sup>	No
Were organotin wastes generated or stored on site? <sup>11</sup>	No
Were polychlorinated biphenyls (PCB) used or stored on site? <sup>12</sup>	No
Were scheduled chemicals <sup>13</sup> used, or wastes stored, on site? <sup>14</sup>	No

Based on the results of the preliminary CCO screening questions above, further assessment of CCO related land contamination risks at the site, is considered not warranted.

<sup>9</sup> SPCC 1986, 'Chemical Control Order In Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide' dated 21 March 1986

<sup>10</sup> NSW EPA 1986, 'Chemical Control Order In Relation to Dioxin-Contaminated Waste Materials' dated 14 March 1986

<sup>11</sup> NSW EPA 1989, 'Chemical Control Order In Relation to Organotin Wastes' dated 11 March 1989

<sup>12</sup> NSW EPA 1997, 'Polychlorinated Biphenyl Chemical Control Order' dated 20 June 1997

<sup>13</sup> Primarily organochlorine pesticide (OCP) compounds, with some industrial by-products

<sup>14</sup> NSW EPA 2004, 'Chemical Control Order in Relation to Scheduled Chemical Wastes



## 8. Conceptual Site Model

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The site history review and observations made during the site walkover, were assessed in the context of the project objectives, in order to develop a conceptual site model (CSM) for the site.

### 8.1 Sources of Contamination

A number of potential land contaminating activities have been identified for the site, based on the site history review and site walkover observations. These include:

- Uncontrolled filling;
- Stockpiling;
- Uncontrolled demolition;
- Use of hazardous building materials for the construction of the buildings;
- Dairying;
- Livestock effluent treatment / disposal;
- Livestock tick and pest treatment (no visual evidence of dip sites discovered, so assumed to be a pour-on or back spray application in immediate vicinity of dairy infrastructure, if undertaken);
- Vehicle and plant storage; and
- Former agricultural practices;

The locations of these potential land contaminating activities, or areas of environmental concern (AEC), are presented in Figure 3a and Figure 3b.

Table J1 in Appendix J of AS 4482.1-2005 and Appendix A in DUAP (1998) provides guidance on chemicals associated with the land uses activities. That guidance provides a basis for deciding on contaminants of potential concern (COPC) for each relevant land use activity. Information on COPC adopted for this investigation is presented in Section 8.5 of this report.

### 8.2 Land Use Scenario

#### 8.2.1 [Adopted Land Use Scenario](#)

For the purpose of this investigation, CS understands that the proposed land use scenario for the site includes:

- Residential with accessible soil, including garden with home grown produce contributing less than 10% fruit and vegetable intake (excluding poultry), and includes children's day care centres, preschools and primary schools.

#### 8.2.2 [Assumptions for Adopted Land Use Scenario](#)

Section 3 of NEPC (2013e) advises that the residential with accessible soil land use scenario includes a variety of building densities, ranging from separate low-density dwellings to high-density unit blocks. The residential land use scenario considered in this investigation is low-density residential, including a sizeable garden (referring to the presence of sufficiently large areas of soil in a garden that may be accessible on a daily basis by young children and adults).



This land use scenario assumes typical residential properties, consisting of single storey dwellings supported by ground-level slabs or multistorey dwellings where living areas are on the ground floor and there is accessible soil in the front and backyard areas.

These residences may have private gardens, consisting of lawns, garden beds and small vegetable gardens and areas of fruit trees, but no poultry.

## 8.3 Receptors

### 8.3.1 [Identified Receptors](#)

Based on the adopted land use scenario, CS considers receptors at the site may include residents, workers, intrusive maintenance workers, ecological (terrestrial and/or aquatic) ecosystems.

### 8.3.2 [Assumptions for Identified Receptors](#)

For residential with accessible soil, this investigation considers the preliminary assessment of potential risks at sites where children are likely to be the most sensitive human receptors, including childcare centres, kindergartens, preschools and primary schools and their integral playgrounds. The scenario is designed to represent a typical residential land use. The scenario also considers circumstances where less exposure to soil would be likely (for example, older people, or without fruit and vegetable gardens).

The occupants of the dwellings include adults, children and infants, who spend the majority of their time on the residential properties and use the outdoor areas of the residences on a frequent basis, for activities such as gardening or recreation.

It is noted that for people within sensitive sub-populations; for example, the immunosuppressed, those with pre-existing illness, or those with pica behaviour, the scenario may not be sufficiently protective of health and a site-specific risk assessment (or criteria) or management strategies may be required.

## 8.4 Exposure Pathways

### 8.4.1 [Human Health](#)

#### 8.4.1.1 *Dermal Contact / Ingestion / Dust Inhalation*

Site history information and walkover observations indicated a potential for contaminants to be present in soils at the site, which may present a dermal contact or ingestion risk to human health.

The proposed land use scenario is likely to include unsealed and open space areas, where a pathway between identified receptors and direct contact / ingestion contaminant sources, may be complete.

Further assessment of dermal contact, dust inhalation and ingestion risk is considered warranted.

#### 8.4.1.2 *Vapour Intrusion / Inhalation*

Vapour intrusion / inhalation exposure risks to human health can occur when a primary or secondary vapour source<sup>15</sup> is present.

Site history information and walkover observations did not indicated a potential for vapour sources to be present at the site, in the form of:

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<sup>15</sup> Primary sources can include underground storage tanks, while secondary sources can include significantly contaminated soil or groundwater.



- a primary source (i.e. USTs); and
- a secondary source (i.e. historical thinner spill and solvent).

Further assessment of vapour intrusion / inhalation risks associated with primary or secondary vapour sources, is considered not warranted.

Site history information and walkover observations also indicated a potential for historical uncontrolled filling. However, CS considers that:

- the transport, placement and spreading of uncontrolled filling typically includes significant disturbance of soils, which would typically result in the volatilisation of contaminants that might normally present an intrusion / inhalation risk; and
- the potential for contaminants to be present in uncontrolled filling at concentrations which could present an intrusion / inhalation risk, is low.

Further assessment of vapour intrusion / inhalation risks associated with the uncontrolled filling, is considered not warranted.

#### **8.4.1.3 Asbestos**

Bonded asbestos containing materials (ACM) comprises asbestos which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.

Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material, which can be broken or crumbled by hand pressure.

Asbestos fines (AF) include free fibres, small fibre bundles and small fragments of bonded ACM that can pass through a 7mm x 7mm sieve.

Asbestos poses a risk to human health when asbestos fibres are made airborne and inhaled. The assessment of sites contaminated with asbestos in soil should aim to describe the nature and quantity of asbestos in soil in sufficient detail to enable a risk management plan to be developed for the proposed land use scenario.

Site history information and walkover observations indicate a potential for bonded ACM, FA and/or AF to be present in soils at the site.

The proposed land use scenario is likely to include unsealed and open space areas, where a pathway between identified receptors and asbestos in soils, may be complete.

Further assessment of asbestos exposure risk is considered warranted.

#### **8.4.2 Hazardous Ground Gases**

NSW EPA (2020a) provides advice on ground gases that if present in the pore space of soils and rocks, can adversely impact human health and safety or the integrity of structures. The ground gases that are generally of concern in this context are:

- Bulk ground gases, including methane, carbon dioxide, carbon monoxide, hydrogen, hydrogen sulphide, and petroleum vapours; and
- Trace ground gases including radon, volatile organic compounds and mercury vapour.

CS has reviewed desktop site history information and site walkover data in the context of sources and origins of hazardous ground gases in Table 1 and Table 2 of NSW EPA (2020a). Based on that review, CS is of the





opinion that further assessment of hazardous ground gases in the context of this project, is considered not warranted.

#### 8.4.3 Aesthetics

CS has used the guidance in Section 3.6.2 and Section 3.6.3 of NEPC (2013a) to facilitate an assessment of site history review information and site walkover observations, in the context of aesthetics risk and the sensitivity of the proposed land use. For example, higher expectations apply to residential properties with gardens compared with industrial settings.

**Table 8.4.2 Preliminary Aesthetics Risk Screening**

Preliminary Aesthetics Risk Screening Questions	Potential
Is there a potential for highly malodorous soils or extracted groundwater (e.g. strong residual petroleum hydrocarbon odours, hydrogen sulphide in soil or extracted groundwater, organosulfur compounds) to be present on site?	No
Is there a hydrocarbon sheen on surface waters on site?	No
Is there potential for discoloured chemical deposits or soil staining with chemical waste other than of a very minor nature, on be present in site soils;	No
Is there potential for large monolithic deposits of otherwise low risk material, e.g. gypsum as powder or plasterboard or cement kiln dust, to be present in site soils;	No
Is there potential for the presence of putrescible refuse including material that may generate hazardous levels of methane such as a deep fill profile of green waste or large quantities of timber waste, in site soils?	No
Is there potential for soils containing residue from animal burial (e.g. former abattoir sites) to be onsite.	No (based on anecdotal evidence)
Is there a potential for large quantities of non-hazardous inert material to be present in site soils?	No
Is there a potential for high odour residue material to be present in site soils?	No
Is there a potential for large quantities of various fill types and demolition rubble to be present in site soils proposed for residential land use?	Yes

The historical records review, observations made during the site walkover and results of the preliminary risk screening, identified the following potential aesthetics risks for the site:

- large quantities of various fill types and demolition rubble to be present in site soils.

#### 8.4.4 Management Limits for Petroleum Hydrocarbons

Section 2.9 of NEPC (2013a) indicates that there are a number of policy considerations which reflect the nature and properties of petroleum hydrocarbons:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosive hazards; and
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services by hydrocarbons.



Section 2.9 of NEPC (2013a) notes that CME (2008) includes management limits to avoid or minimise these potential effects. Application of management limits requires consideration of site specific factors such as depth of building basements and services, and depth to groundwater, to determine the maximum depth to which the limits should apply. NEPC (2013a) also states that:

- management limits may have less relevance at operating industrial sites (including mine sites) which have no or limited sensitive receptors in the area of potential impact.
- the presence of site total petroleum hydrocarbon (TPH) contamination at the levels of the management limits does not imply that there is no need for administrative notification or controls in accordance with jurisdiction requirements.

Site history information and walkover observations indicated a potential for these policy considerations to be associated with relevant identified AEC at the site, in the context of the proposed future land use scenario. On that basis, further assessment of petroleum hydrocarbons in soils in the context of those policy considerations, is considered warranted.

#### 8.4.5 Groundwater

Section 2.2 of NSW DEC (2007) provides guidance on the need for the potential for groundwater contamination to be assessed, for the purposes of evaluating whether it may pose an unacceptable risk to human health and/or the environment.

Section 3.2 of NEPC (2013d) provides guidance on the environmental values (that are conducive to public benefit, welfare, safety or health) and that require protection from the effects of pollution, waste discharge and deposits. These values include:

- Ecosystem protection;
- Aquaculture and human consumers of food;
- Agricultural water (irrigation and stock water);
- Recreation and aesthetics;
- Drinking water; and
- Industrial water.

With the exception of an onsite sewer system, site history information and walkover observations did not identify key groundwater contaminating activities onsite, including:

- Surface staining or odours;
- Onsite UST and AST;
- Significant deep filling; and
- Handling and/or storage of chemicals.

whereby contaminants are likely to become sufficiently mobile, migrate into groundwater and subsequently be transported to receiving water bodies.

Based on key groundwater contaminating activities having not been identified onsite, CS consider further assessment of groundwater contamination is not warranted. If a source for potential groundwater contamination is identified (i.e. sewer system leak, detection of elevated concentrations of mobile contaminants of concern in soil), further assessment of groundwater onsite may be warranted.



#### 8.4.6 Terrestrial Ecosystems

Site history information and walkover observations indicated a potential for contaminants, which may present an ecological risk, may be present on site.

Section 3.4.2 of NEPC (2013a) indicates that:

- a pragmatic risk-based approach should be taken when assessing ecological risk in residential and commercial / industrial land use settings;
- in existing residential and urban development sites, there are often practical considerations that enable soil properties to be improved by addition of ameliorants with a persistent modifying effect or by the common practice of backfilling or top dressing with clean soil;
- in other cases, all of the site soils will be removed during site development works or relocated for the formation of new land forms;
- sites may also be backfilled with clean soil/fill and the fate of any excavated contaminated soil should be considered in process; and
- commercial and industrial sites may have large building structures and extensive areas covered with concrete, other pavement or hardstand materials and may have limited environmental values requiring consideration while in operational use.

The proposed land use scenario is likely to include unsealed, open space and landscaped areas, where an ecological exposure pathway may be complete.

On that basis, further assessment of terrestrial ecosystem exposure risks is considered warranted.

### 8.5 **Source, Receptor, Pathway Model**

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources and receptors, and exposure pathways between those sources and receptors.

Based on:

- the areas of environmental concern (AEC) at the site where sources of contamination may be present;
- the contaminants of potential concern (COPC) identified for the site;
- receptors identified for the site; and
- the exposure pathways between those sources and receptors assessed as being potentially or actually complete,

a CSM is presented for the site in Table 8.5.

**Table 8.5 Conceptual Site Model**

ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC01	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC02	Organic stockpile	Stockpiling of organic matter	Aesthetics	Aesthetics	Residents Maintenance Workers
AEC03	Organic stockpile	Stockpiling of organic matter	Aesthetics	Aesthetics	Residents Maintenance Workers
AEC04	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC05	Building waste (brick/concrete) stockpile	Stockpiling of building waste (brick/concrete)	Aesthetics and asbestos	Dust inhalation Aesthetics	Residents Maintenance Workers





ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC06	Sand stockpile	Stockpiling of sand	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC07	Soil Stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC08	Soil Stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC09	Raised garden bed	Stockpiling of soil for garden use	Hydrocarbons, pesticides, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC10	Raised garden bed	Stockpiling of soil for garden use	Hydrocarbons, pesticides, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC11	Raised garden bed	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC12	Soil stockpile	Stockpiling of soil	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC13	Fill area 1	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC14	Fill area 2	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems





ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC15	Fill area 3	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC16	Fill area 4	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC17	Fill area 5	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC18	Fill area 6 (footprint of machinery shed and areas immediately surrounding the shed)	Historical uncontrolled filling, Plant laydown.	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC19	Fill area 7 (footprint of former dairy building)	Historical uncontrolled filling; Storage and handling of lice and tick treatments; Use of hazardous building materials; Livestock effluent; and Termite treatment.	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC20	Fill area 8	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC21	Fill area 9 (footprint of residential dwelling and attached sheds within the central east portion of the site)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC22	Fill area 10 (shed and storage area)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC23	Fill area 11 (shed)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems





ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC24	Fill area 12 (footprint of residential dwelling to the north)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC25	Fill area 13 (dam wall)	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC26	Septic system	Handling and storage of domestic waste effluent	Hydrocarbons, metals, pathogens	Dermal contact Soil Ingestion Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC27	Dam water	Handling and storage of surface water	Hydrocarbons, metals, nutrients, pathogens	Dermal contact Soil Ingestion Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC28	Livestock holding pen	Storage and handling of lice and tick treatments; and Livestock effluent.	Hydrocarbons, pesticides, pathogens, nutrients	Dermal contact Soil Ingestion Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC29	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC30	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC31	Historical building footprint	Uncontrolled demolition	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems



ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC32	Historical farming area	Use of chemicals in farming practices	Hydrocarbons, pesticides, metals	Dermal contact Soil Ingestion Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems
AEC33	Asphalt / gravel roadway	Historical uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos	Dermal contact Soil Ingestion Dust inhalation Direct Uptake Aesthetics Management Limits	Residents Maintenance Workers Terrestrial Ecosystems





## 9. Conclusions and Recommendations

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Based on CS' assessment of desktop review information and fieldwork observations, CS makes the following conclusions:

- There is a potential for contamination to be present at the site, arising from past and present land use activities;
- Thirty-three areas of environmental concern have been identified for the site; and
- The site could be made suitable for the proposed land use scenario, subject to the identified AEC being further assessed, and identified unacceptable human health and ecological exposure risks being managed and/or remediated

Based on these conclusions, CS makes the following recommendations:

- A stage 2 detailed site investigation (DSI) should be undertaken at the site to further assess potential contamination risks associated with the identified areas of environmental concern, and to further assess the suitability of the site, from a contamination perspective, for the proposed land use; and
- The stage 2 DSI should be undertaken by a suitably experienced environmental consultant.

This report must be read in conjunction with the **Information About This Report** page at the front of this report.



## 10. References

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DUAP 1998, 'Managing Land Contamination Planning Guidelines SEPP55 – Remediation of Land', dated April 1999, ref: 98/65.

Friebel, E & Nadebaum, P 2011, 'Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document', CRC CARE Technical Report No. 10.

HEPA 2020, 'PFAS National Environmental Management Plan', dated January 2020, version 2.0

National Environment Protection Council (NEPC) 2013a, 'Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013b, 'Schedule B(2) Guideline on Site Characterisation', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

NSW DECCW 2010, 'Vapour Intrusion: Technical Practice Note', dated September 2010, ref: DECCW 2010/774.

NSW EPA 1986, 'Chemical Control Order In Relation to Dioxin-Contaminated Waste Materials' dated 14 March 1986

NSW EPA 1989, 'Chemical Control Order In Relation to Organotin Wastes' dated 11 March 1989

NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines', dated September 1995, ref: EPA 95/59.

NSW EPA 1997, 'Polychlorinated Biphenyl Chemical Control Order' dated 20 June 1997

NSW EPA 2004, 'Chemical Control Order in Relation to Scheduled Chemical Wastes

NSW EPA 2020a, 'Assessment and management of hazardous ground gases' dated May 2020, ref: EPA 2019P2047

NSW EPA 2020b, 'Contaminated Land Guidelines: Consultants reporting on contaminated land' dated May 2020, ref: EPA2020P2233.

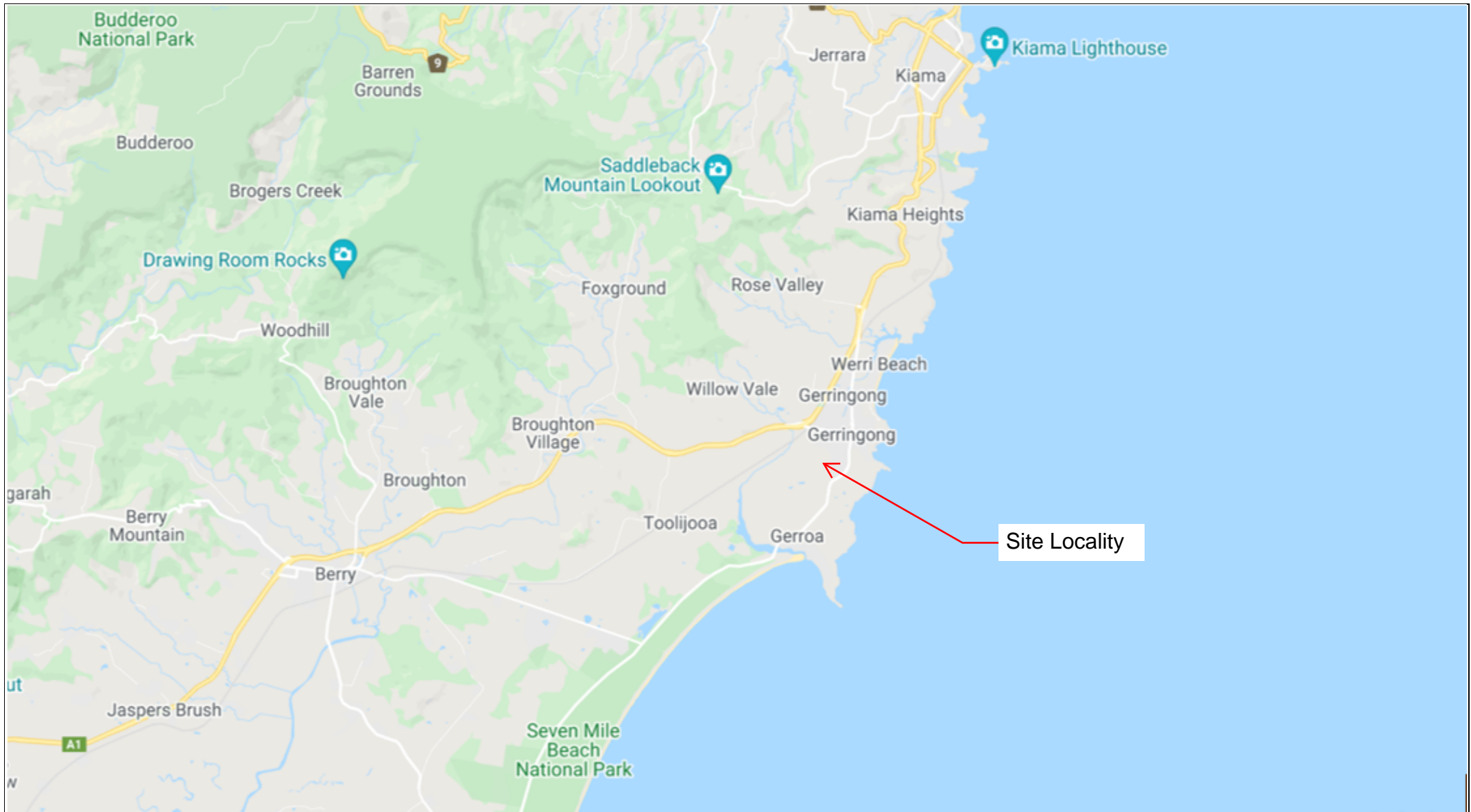
SPCC 1986, 'Chemical Control Order In Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide' dated 21 March 1986



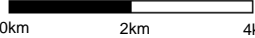
WA DOH 2009, 'Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia', dated May 2009.

# FIGURES

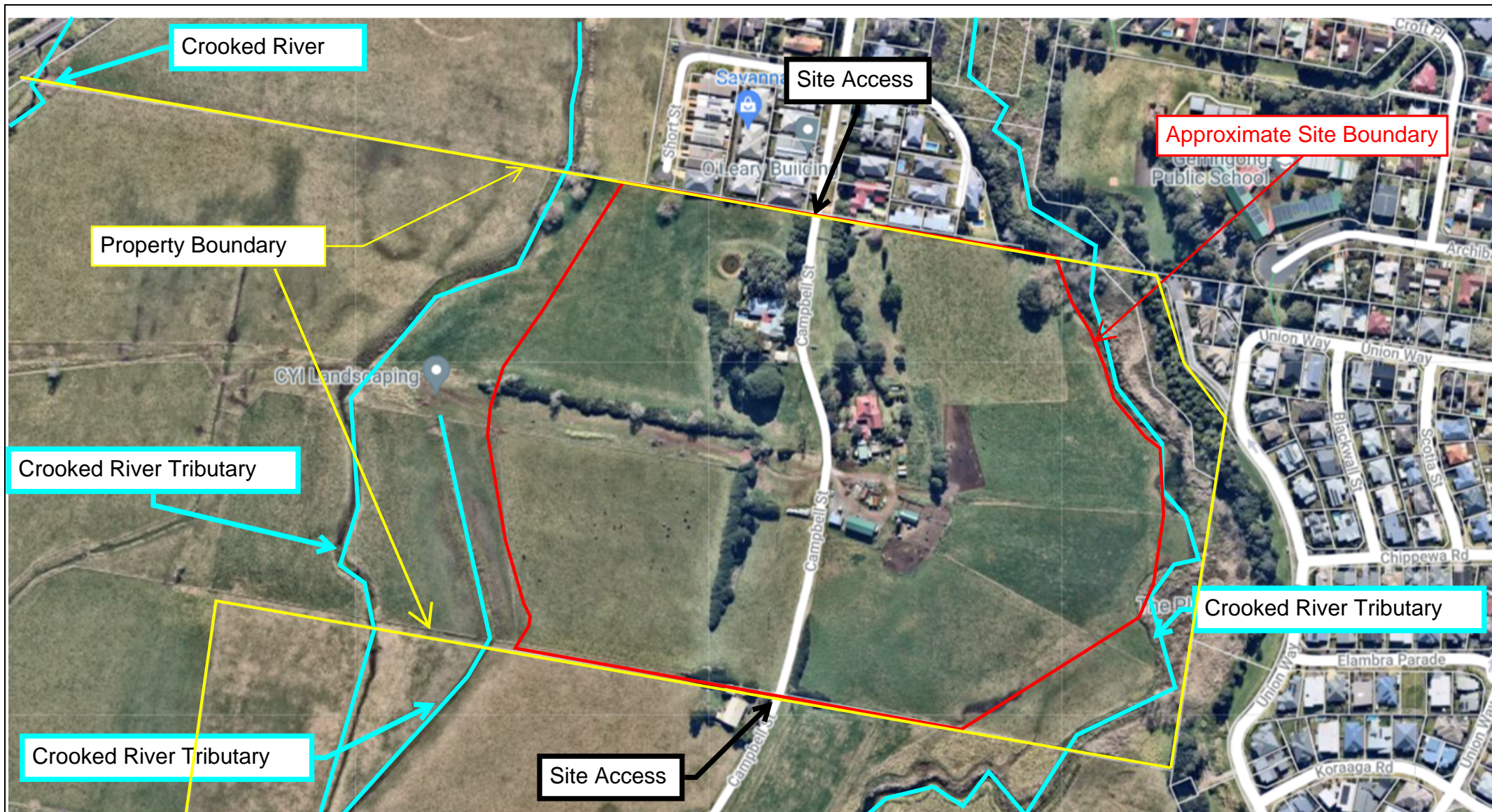
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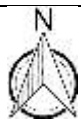
	<b>LEGEND:</b>	 <b>Construction Sciences</b> 2/4 Kellogg Rd ROOTY HILL NSW 2766 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: <a href="http://www.constructionsciences.net">www.constructionsciences.net</a>	Scale: 	Client: Allen Price & Scarratts Pty Ltd	
			Date: 03 September 2021	Project: Stage 1 Preliminary Site Investigation	
			Drawn By: NW	Location: 48 Campbell Street, Gerringong, NSW, 2534	
			Drawing No: Figure 1	Sheet:	<b>Site Locality</b>





	<b>LEGEND:</b>	 <b>Construction Sciences</b> 2/4 Kellogg Rd ROOTY HILL NSW 2766 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: <a href="http://www.constructionsciences.net">www.constructionsciences.net</a>	Scale:  0m 50m 100m	Client: Allen Price & Scarratts Pty Ltd	
			Date: 03 September 2021	Project: Stage 1 Preliminary Site Investigation	
			Drawn By: NW	Location: 48 Campbell Street, Gerringong, NSW, 2534	
			Drawing No: Figure 2	Sheet:	<b>Site Layout</b>





**LEGEND:**

- Stockpiles / Wastes Storage
- Fill Materials
- Livestock Holding Pen
- Dam
- Septic Systems



2/4 Kellogg Road, Glendenning NSW 2761  
 Tel: (02) 8646 2000  
 Fax: (02) 8646 2025  
 Web: [www.constructionsciences.net](http://www.constructionsciences.net)

Scale: ← 50.0 m →

Date: 07 September 2021

Drawn By: SHS

Drawing No: Figure 3a

Client: Allen Price & Scarratts Pty Ltd

Job Number: 10791EV.P.234

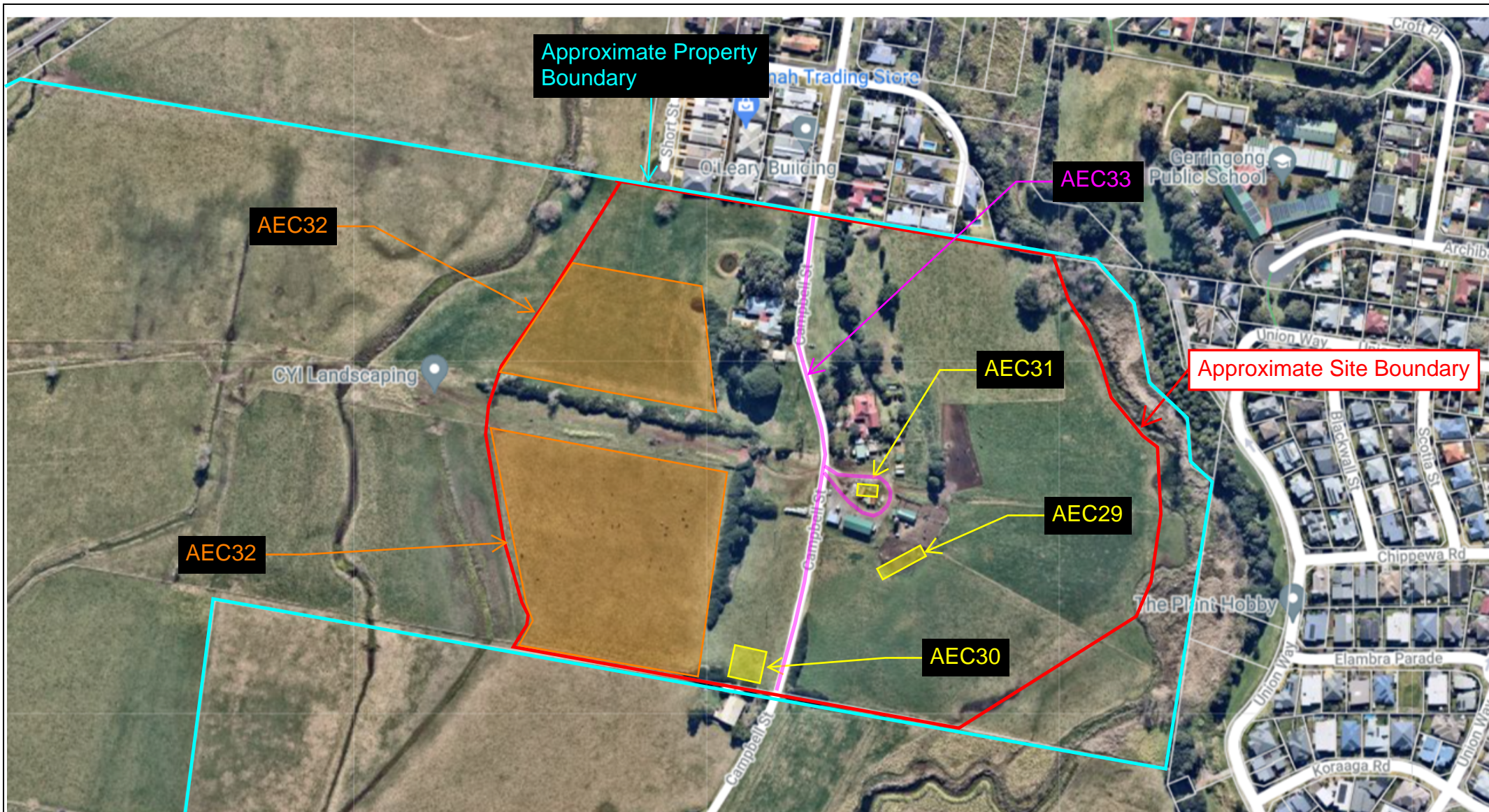
Project: Stage 1 Preliminary Site Investigation

Location: 48 Campbell Street, Gerringong, NSW, 2534

Sheet: 1 of 1

**Areas of Environmental Concern**



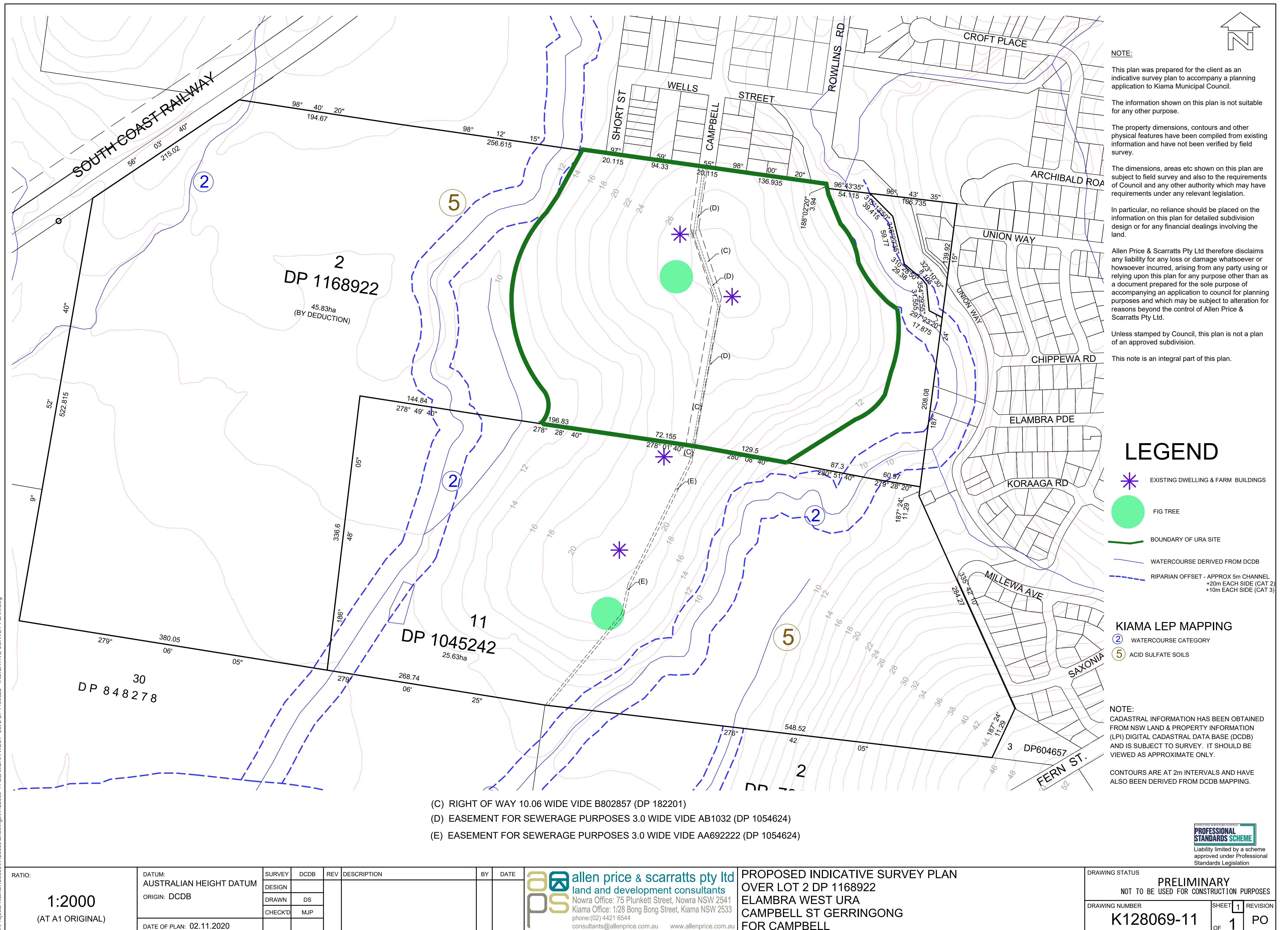


	<b>LEGEND:</b>		<p>2/4 Kellogg Rd ROOTY HILL NSW 2766 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: <a href="http://www.constructionsciences.net">www.constructionsciences.net</a></p>		Scale:  0m 50m 100m		Client: Allen Price & Scarratts Pty Ltd	
		Historical Building Demolition			Date: 07 September 2021		Project: Stage 1 Preliminary Site Investigation	
		Historical Agricultural Practices			Drawn By: SHS		Location: 48 Campbell Street, Gerringong, NSW, 2534	
		Asphalt / Gravel Roadway			Drawing No: Figure 3b		Sheet:	<b>Areas of Environmental Concern</b>

# Appendix A

## DETAILED SURVEY









# Appendix B

## GROUNDWATER



# WaterNSW

## Work Summary

GW026721

Licence: 10WA105903

Licence Status: CURRENT

Authorised Purpose(s): STOCK,DOMESTIC

Intended Purpose(s): STOCK, DOMESTIC

Work Type: Well

Work Status: Supply Obtained

Construct.Method:

Owner Type: Private

Commenced Date:

Completion Date: 01/01/1950

Final Depth: 5.40 m

Drilled Depth: 5.50 m

Contractor Name: (None)

Driller:

Assistant Driller:

Property: ELAMBRA Campbell St  
GERRINGONG 2534 NSW

GWMA: 603 - SYDNEY BASIN

GW Zone: -

Standing Water Level (m):

Salinity Description: invalid code

Yield (L/s):

### Site Details

Site Chosen By:

County

Form A: CAMDEN

Licensed: CAMDEN

Parish

BROUGHTON

BROUGHTON

Cadastre

173

Whole Lot

11//1045242

Region: 10 - Sydney South Coast

CMA Map: 9028-2N

River Basin: 215 - SHOALHAVEN RIVER

Grid Zone:

Scale:

Area/District:

Elevation: 0.00 m (A.H.D.)

Northing: 6152008.000

Latitude: 34°45'16.3"S

Elevation Source: (Unknown)

Easting: 300239.000

Longitude: 150°49'03.2"E

GS Map: -

MGA Zone: 56

Coordinate Source: PR.,ACC.MAP

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Nil	0.00	0.00	1524			

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
2.40	5.40	3.00	Unconsolidated	0.70					

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	5.48	5.48	Clay Slightly Gravel Sandy Water Supply	Clay	

\*\*\* End of GW026721 \*\*\*

**Warning To Clients:** This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

# WaterNSW

## Work Summary

GW031905

Licence:

Licence Status:

Authorised Purpose(s):

Intended Purpose(s): STOCK

Work Type: Bore open thru rock

Work Status:

Construct.Method: Cable Tool

Owner Type: Private

Commenced Date:

Completion Date: 01/12/1968

Final Depth: 30.40 m

Drilled Depth: 30.50 m

Contractor Name: (None)

Driller:

Assistant Driller:

Property:

GWMA:

GW Zone:

Standing Water Level (m):

Salinity Description: Good

Yield (L/s):

### Site Details

Site Chosen By:

County

Parish

Cadastre

Form A: CAMDEN

BROUGHTON

173

Licensed:

CMA Map: 9028-2N

Grid Zone:

Scale:

Region: 10 - Sydney South Coast

River Basin: 215 - SHOALHAVEN RIVER

Area/District:

Elevation: 0.00 m (A.H.D.)

Elevation Source: (Unknown)

Northing: 6152458.000

Easting: 299695.000

Latitude: 34°45'01.3"S

Longitude: 150°48'42.2"E

GS Map: -

MGA Zone: 56

Coordinate Source: GD.,ACC.MAP

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing		-0.30	11.80	203			Suspended in Clamps

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
12.10	12.10	0.00	(Unknown)	4.80		0.95			

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.57	4.57	Topsoil	Topsoil	
4.57	12.19	7.62	Shale Water Supply	Shale	
12.19	30.48	18.29	Granite	Granite	



**\*\*\* End of GW031905 \*\*\***

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# WaterNSW

## Work Summary

GW037887

Licence:	Licence Status:
Authorised Purpose(s): Intended Purpose(s): IRRIGATION	
Work Type: Bore open thru rock	
Work Status:	
Construct.Method: Rotary	
Owner Type: Private	
Commenced Date:	Final Depth: 82.29 m
Completion Date: 01/01/1968	Drilled Depth: 82.29 m
Contractor Name: (None)	
Driller:	
Assistant Driller:	
Property:	Standing Water Level (m):
GWMA:	Salinity Description:
GW Zone:	Yield (L/s):

### Site Details

Site Chosen By:			
County		Parish	Cadastre
Form A: CAMDEN		BROUGHTON	L90 (173)
Licensed:			
Region: 10 - Sydney South Coast		CMA Map: 9028-2N	
River Basin: 215 - SHOALHAVEN RIVER	Grid Zone:		Scale:
Area/District:			
Elevation: 0.00 m (A.H.D.)	Northing: 6152032.000	Latitude: 34°45'15.3"S	
Elevation Source: (Unknown)	Easting: 299958.000	Longitude: 150°48'52.2"E	
GS Map: -	MGA Zone: 56	Coordinate Source: GD.,ACC.MAP	

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing		0.00	8.10	203			

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
75.50	75.50	0.00	Fractured	7.70		6.32			

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.60	0.60	Soil	Soil	
0.60	3.35	2.75	Clay	Clay	
3.35	5.48	2.13	Clay Sand	Clay	
5.48	7.62	2.14	Gravel Sand	Gravel	
7.62	9.44	1.82	Basalt	Basalt	
9.44	10.05	0.61	Basalt Decomposed	Basalt	
10.05	35.05	25.00	Basalt	Basalt	

35.05	53.03	17.98	Granite Red	Granite	
53.03	82.29	29.26	Shale Sandy Water Supply	Shale	
3.35	5.48	2.13	Gravel	Gravel	

\*\*\* End of GW037887 \*\*\*

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

# Appendix C

EPA

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Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GEORGETOWN	Former Caltex Service Station	4 Georgetown ROAD	Service Station	Regulation under CLM Act not required	-32.91121105	151.7319693
GERRINGONG	Gerringong Cooperative	18 Belinda STREET	Other Petroleum	Regulation under CLM Act not required	-34.74518835	150.8181054
GILGANDRA	United (Former Mobil) Service Station	13 Castlereagh STREET	Service Station	Regulation under CLM Act not required	-31.71715641	148.6581574
GILGANDRA	Former Mobil Depot	2 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70937362	148.6522102
GILGANDRA	Former Mobil Depot	20 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70771744	148.6514198
GILGANDRA	Caltex Service Station Gilgandra	6425 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-31.72545524	148.65281
GILLENBAH	Caltex (Former Mobil) Narrandera Service Station	16321 - 16335 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-34.76124219	146.5398604
GIRRAWEE	Industrial Galvanizers Girraween	20-22 Amax AVENUE	Metal Industry	Under assessment	-33.80500693	150.9396743
GIRRAWEE	Caltex Pendle Hill Service Station Girraween	602 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.80827518	150.9421511
GLADESVILLE	Caltex Service Station	287-295 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8285374	151.1268639
GLADESVILLE	Road Reserve	Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.81603924	151.1355085
GLADESVILLE	Caltex Service Station	116 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.83575319	151.1277863
GLADESVILLE	Glade View Business Park	436-484 Victoria ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.82382382	151.1223941
GLADSTONE	Barbers Auto Port	52-53 Barnard STREET	Service Station	Under assessment	151.691898	152.948223
GLEBE	The Hill and Jubilee Embankment	12 Maxwell ROAD	Other Industry	Regulation under CLM Act not required	-33.87573032	151.1776027
GLEN INNES	Ambulance Station	106 Bourke STREET	Unclassified	Regulation under CLM Act not required	-29.73805854	151.7313138

Your search for: **General Search** with the following criteria

**Suburb - Gerringong**

returned 15 results

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1 of 1 Pages

[Search Again](#)

Number	Name	Location	Type	Status	Issued date
<a href="#">20120</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	POEO licence	Surrendered	26 Jun 2012
<a href="#">1508757</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	25 Sep 2012
<a href="#">1512461</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	04 Mar 2013
<a href="#">3085769812</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	Penalty Notice	Issued	02 Apr 2013
<a href="#">1515590</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	30 Jul 2013
<a href="#">1520647</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	07 Mar 2014
<a href="#">1526433</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	19 Nov 2014
<a href="#">1528614</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	20 Feb 2015
<a href="#">1529410</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	25 Mar 2015
<a href="#">1530517</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	14 May 2015
<a href="#">1531640</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	02 Jul 2015
<a href="#">1532759</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	14 Sep 2015
<a href="#">1537012</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.58 Licence Variation	Issued	07 Jan 2016
<a href="#">1538462</a>	FULTON HOGAN CONSTRUCTION PTY LTD	446 Princes Highway, GERRINGONG, NSW 2534	s.80 Surrender of a Licence	Issued	26 Feb 2016
<a href="#">1535315</a>	NOWRA RUBBER CO PTY LTD	73 Rowllins Road, GERRINGONG, NSW 2534	s.91 Clean Up Notice	Issued	10 Nov 2015

17 August 2021

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## Search results

Your search for: Suburb: GERRINGONG

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register. [POEO public register](#)

Search Again

Refine Search

### Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... [more search tips](#)

For

3 September 2021

**business and industry** ^

## For local government ^

### Contact us

131 555 (tel:131555)

Online (<https://yoursay.epa.nsw.gov.au/epa-website-feedback>)

[info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au) (<mailto:info@epa.nsw.gov.au>)

EPA Office Locations (<https://www.epa.nsw.gov.au/about-us/contact-us/locations>)

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# Appendix D

## PLANNING CERTIFICATE

## PLANNING CERTIFICATE

ISSUED UNDER SECTION 10.7(2) OF THE  
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

### APPLICANT DETAILS:

Mr N Watson  
2/4 Kellogg Road  
GLENDENNING 2761

<b>Certificate Number:</b>	900.2021.629	<b>Certificate Date:</b>	17/08/2021
<b>Applicant Reference:</b>	10791.EV.P.234		

### PROPERTY DESCRIPTION:

**Property Number:** 12807  
**Property Title:** LOT: 2 DP: 1168922  
**Property Address:** 48 Campbell Street GERRINGONG NSW 2534

### SECTION 10.7 (2) PRESCRIBED MATTERS UNDER SCHEDULE 4 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

#### 1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPS

- (1) **The name of each environmental planning instrument that applies to the carrying out of development on the land.**

Kiama Local Environmental Plan 2011.

#### SEPP No 21 – Caravan Parks

This Policy aims to ensure that where caravan parks or camping grounds are permitted under an environmental planning instrument, movable dwelling, as defined in the Local Government Act 1993, are also permitted.

#### SEPP No 33 – Hazardous and Offensive Development

This Policy aims to provide definitions for 'hazardous industry', 'hazardous storage establishments', 'offensive industry' and 'offensive storage establishment'. The definitions apply to all planning instruments, existing and future. The new definitions enable decisions to approve or refuse a development to be based on the merit of the proposal.

#### SEPP No 36 – Manufactured Home Estates

This Policy aims to help establish well-designed and properly serviced manufactured home estates in suitable locations.

#### SEPP No 50 – Canal Estate Developments

This Policy aims to ban new canal estates from the date of gazettal, to ensure coastal and aquatic environments are not affected by these developments.

**SEPP No 55 – Remediation of Land**

This Policy aims to introduce state-wide planning controls for the remediation of contaminated land.

**SEPP No 64 – Advertising and Signage**

This Policy aims to ensure that outdoor advertising is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of high quality design and finish.

**SEPP No 65 – Design Quality of Residential Apartment Development**

This Policy aims to raise the design quality of residential apartment development across the State through the application of a series of design principles.

**SEPP No 70 – Affordable Housing (Revised Schemes)**

This Policy identifies that there is a need for affordable housing across the whole of the State, describes the kinds of households for which affordable housing may be provided, and makes a requirement with respect to the imposition of conditions relating to the provisions of affordable housing.

**SEPP (Affordable Rental Housing) 2009**

This Policy aims to establish a consistent planning regime for the provision of affordable rental housing. It also aims to support local centres by providing housing for workers close to places of work, and facilitate development of housing for the homeless and other disadvantaged people.

**SEPP (Building Sustainability Index: BASIX) 2004**

This SEPP operates in conjunction with Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004 to ensure the effective introduction of BASIX in NSW.

**SEPP (Education Establishments and Child Care Facilities) 2017**

The aim of this Policy is to facilitate the effective delivery of educational establishments and early education and care facilities across the State.

**SEPP (Exempt and Complying Development Codes) 2008**

This Policy aims to streamline assessment processes for development that complies with specific development standards.

**SEPP (Housing for Seniors or People with a Disability) 2004**

This Policy aims to encourage the development of high quality accommodation for our ageing population and for people who have disabilities. The SEPP applies to specific land as outlined under Clause 4 of the SEPP which can be found on the NSW legislation website.

**SEPP (Infrastructure) 2007**

This Policy aims to provide a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process.

**SEPP (Mining, Petroleum Production and Extractive Industries) 2007**

This Policy aims to provide for the proper management and development of mineral, petroleum and extractive material resources for the social and economic welfare of the State. The Policy establishes appropriate planning controls to encourage ecologically sustainable development.

**SEPP (Primary Production and Rural Development) 2019**

The aim of this Policy is to support sustainable agriculture and aquaculture across the State.

SEPP (State and Regional Development) 2011

The aims of this Policy are to identify development that is State significant development or State significant infrastructure and critical State significant infrastructure and to confer functions on joint regional planning panels to determine development applications.

SEPP (State Significant Precincts) 2005

This Policy aims to provide planning provisions for State significant sites.

- (2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Secretary has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).**

There are NO Planning Proposals (Proposed Environmental Planning Instruments) applying to the carrying out of development on the land that is or has been the subject of community consultation or on public exhibition under the Act.



**DRAFT STATE ENVIRONMENTAL PLANNING POLICY (Environment)**

The purpose of the Draft SEPP is to promote the protection and improvement of key environmental assets for their intrinsic value and the social and economic benefits they provide. The Draft SEPP proposes to integrate provisions from seven existing SEPPs relating to catchments, waterways, urban bushland and world heritage:

- State Environmental Planning Policy No. 19 - Bushland in Urban Areas;
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011;
- State Environmental Planning Policy No. 50 - Canal Estate Development;
- Greater Metropolitan Regional Environmental Plan No. 2 - Georges River Catchment;
- Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No.2-1997);
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- Willandra Lakes Regional Environmental Plan No. 1 - World Heritage Property.

Refer to the NSW Planning & Environment website for further information  
[www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

**DRAFT STATE ENVIRONMENTAL PLANNING POLICY (Remediation of Land)**

The new SEPP will retain elements of SEPP 55, and add new provisions to establish a modern approach to the management of contaminated land.

Refer to the NSW Planning & Environment website for further information  
[www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

**DRAFT STATE ENVIRONMENTAL PLANNING POLICY (Short-term Rental Accommodation) 2019**

The aims of this Policy are as follows -

- (a) to support short-term rental accommodation as a home sharing activity and contributor to local economies, while managing the social and environmental impacts from this use,
- (b) to provide for the safety of users of short-term rental accommodation who may be less familiar with the dwelling,
- (c) to clarify the types of housing that may be used for the purpose of short-term rental accommodation.

Refer to the NSW Planning & Environment website for further information  
[www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

**DRAFT STATE ENVIRONMENTAL PLANNING POLICY (Housing Diversity) 2020**

The Explanation of Intended Effects (EIE) for the proposed new SEPP included the following aims to deliver a planning framework that:

- will assist the State's economic recovery following COVID-19;
- consolidates existing State level housing-related planning provisions into a single instrument;
- is in a format capable of being expanded and amended as future needs may require; and
- facilitates the delivery of housing that meets the needs of the State's growing population.

Under the EIE the following SEPP's were proposed to be repealed:

- State Environmental Planning Policy (Affordable Rental Housing) 2009;
- State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004; and
- State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes).

Following the feedback received from the EIE the Department has developed a new proposed State Environmental Planning Policy (Housing SEPP) which aims to facilitate the delivery of more diverse and affordable housing types.

The DRAFT STATE ENVIRONMENTAL PLANNING POLICY (Housing SEPP) is proposed to:

- consolidate five existing housing-related SEPPs (State Environmental Planning Policy (Affordable Rental Housing) 2009; State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004; State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes); State Environmental Planning Policy No 21 - Caravan Parks; and State Environmental Planning Policy No 36 - Manufactured Home Estates);
- include the recently made provisions for short term rental accommodation and build-to-rent housing;
- include the recently updated social housing provisions;
- introduce provisions for co-living housing, a form of housing that provides small private rooms (which may or may not include private kitchen and bathroom facilities), offset by access to managed communal spaces;
- incorporate amendments to boarding house and seniors housing provisions;
- amend some local environmental plans in relation to secondary dwellings in rural zones, and the permissibility of boarding houses in R2 zones.

Refer to the NSW Planning and Environment website for further information [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

#### PROPOSED STATE ENVIRONMENTAL PLANNING POLICY (Design and Place)

The proposed new Design and Place SEPP establishes principles, matters for consideration and guidance to encourage innovative design that maximises public benefit.

It is proposed the Design and Place SEPP will support consolidation and simplification by repealing and replacing SEPP No 65 - Design Quality of Residential Apartment Development (SEPP 65) and SEPP (Building Sustainability Index: BASIX) 2004 (BASIX SEPP).

Refer to the NSW Planning and Environment website for further information [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

#### PROPOSED ENVIRONMENTAL PLANNING INSTRUMENT AMENDMENT - AGRITOURISM AND SMALL-SCALE AGRICULTURE DEVELOPMENT

The NSW Department of Planning, Industry and Environment is proposing amendments to existing controls within the planning system to facilitate more agritourism and small-scale agricultural developments, while balancing the need for individual councils to respond to different environmental and development settings. An Explanation of Intended Effects (EIE) is available on the Department's website [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au).

The EIE proposes amendments to the NSW planning system to better enable 'agritourism' and small-scale agricultural development to be approved. It also seeks to respond to natural disasters such as droughts and bushfires, and to simplify planning approvals for development or activities that have no or low environmental impact.

The EIE outlines the intended effect of proposed amendments to:

- the Standard Instrument (Local Environmental Plans) Order 2006 (Standard Instrument LEP Order),
- the State Environmental Planning Policy (Primary Production and Rural Development) 2019 (PPRD SEPP), and
- the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP).

Further information can be found on the NSW Department of Planning, Industry and Environment's website.

**PROPOSED ENVIRONMENTAL PLANNING INSTRUMENT - EMPLOYMENT ZONES**

The NSW Department of Planning, Industry and Environment is proposing amendments to replace the existing Business (B) and Industrial (IN) zones with five new employment zones and three supporting zones under Standard Instrument Principal Local Environmental Plan (2006) (SI LEP).

They have developed the proposed employment zones framework to:

- Maximise productivity while minimising land use conflicts and ensuring they are fit for purpose
- Address current barriers within the planning system that limit the ability of businesses to establish, expand or adapt, and
- Better support councils in the delivery of the strategic vision contained in their Local Strategic Planning Statements and background studies.

The reform does not seek to up zone land as it remains the prerogative of councils to set development standards and controls for height and density.

Refer to the NSW Planning and Environment website for further information [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

**(3) The name of each development control plan that applies to the carrying out of development on the land.**

Kiama Development Control Plan 2020

This plan is a consolidated Development Control Plan (DCP) giving an added level of guidance for development in the Kiama Municipality.

**(4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument**

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## **2 ZONING AND LAND USE UNDER RELEVANT LEPS**

**For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):**

- (a) the identity of the zone, whether by reference to a name (such as “Residential Zone” or “Heritage Area”) or by reference to a number (such as “Zone No 2(a))”,**
- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent,**
- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent,**
- (d) the purposes for which the instrument provides that development is prohibited within the zone,**

## KIAMA LOCAL ENVIRONMENTAL PLAN 2011:

## (a) ZONE RU2 RURAL LANDSCAPE

## (b) Permitted without consent:

Environmental protection works; Extensive agriculture; Home occupations

## (c) Permitted with consent:

Agricultural produce industries; Air transport facilities; Animal boarding or training establishments; Aquaculture; Bed and breakfast accommodation; Building identification signs; Business identification signs; Cellar door premises; Cemeteries; Community facilities; Crematoria; Dairies (restricted); Dwelling houses; Eco-tourist facilities; Environmental facilities; Extractive industries; Farm buildings; Farm stay accommodation; Flood mitigation works; Forestry; Highway service centres; Home-based child care; Home businesses; Home industries; Home occupations (sex services); Industrial retail outlets; Information and education facilities; Intensive plant agriculture; Recreation areas; Roads; Roadside stalls; Secondary dwellings; Water supply systems

## (d) Prohibited:

Any development not specified in item (b) or (c)

**(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed,**

The land in zone RU2 Rural Landscape IS affected by a development standard which fixes minimum land dimensions for the erection of a dwelling house under clause 4.2A of Kiama Local Environmental Plan 2011. In accordance with the Lot Size Map the minimum lot size is 40ha.

**(f) whether the land includes or comprises critical habitat,**

The land does NOT include or comprise "critical habitat" under Kiama Local Environmental Plan 2011.

**(g) whether the land is in a conservation area (however described),**

The land is NOT in a conservation area under Kiama Local Environmental Plan 2011.



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**(h) whether an item of environmental heritage (however described) is situated on the land.**

A heritage item is NOT situated on the land under Kiama Local Environmental Plan 2011, unless a dry stone wall is situated on the land and the land is within the locality of Dunmore, Foxground, Jamberoo or Kiama, then a heritage item IS situated on the land under Kiama Local Environmental Plan 2011.

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**2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006**

This clause does not apply to land in the Municipality of Kiama.

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**3 COMPLYING DEVELOPMENT**

- (1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.**
- (2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.**
- (3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.**

In accordance with the provisions of Clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of the Codes SEPP the following advice is provided for each of the Codes. Where the land is partially affected by one or more of those provisions, complying development may be carried out on the part of the land that the clauses do not apply to.

Further development controls may apply. Refer to *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* and *Kiama Local Environmental Plan 2011* for full details.

**Dry Stone Walls:**

No inspection of the property has been made for the purpose of issuing this certificate. Where a dry stone wall is situated on the land and the land is located within the locality of Dunmore, Foxground, Jamberoo or Kiama, complying development under each of the Codes (as they apply to the land) MAY NOT be carried out on that PART of the land as it is land that is identified as a heritage item by an environmental planning instrument in accordance with Clause 1.17A (1) (d) (iii) and Clause 1.19 (3A) of the Codes SEPP. Council encourages you to make a full inspection of the property to determine if a dry stone wall is situated on the land to which this certificate relates.

## **The Housing Code**

Under the Housing Code, Complying Development MAY NOT be carried out on the land within zone RU2 Rural Landscape.

Note: The Housing Code only applies to land within zones R2 Low Density Residential and R3 Medium Density Residential under Kiama Local Environmental Plan 2011.

## **The Rural Housing Code**

Under the Rural Housing Code, Complying Development MAY be carried out on the land.

## **The Low Rise Housing Diversity Code**

Under the Low Rise Housing Diversity Code, Complying Development MAY NOT be carried out on the land within zone RU2 Rural Landscape.

Note: The Low Rise Housing Diversity Code only applies to land within zones R2 Low Density Residential and R3 Medium Density Residential under Kiama Local Environmental Plan 2011.

## **The Greenfield Housing Code**

Under the Greenfield Housing Code, Complying Development MAY NOT be carried out on the land as it is not land identified within the Greenfield Housing Code Area under the Codes SEPP.

## **The Housing Alterations Code**

Under the Housing Alterations Code, Complying Development MAY be carried out on the land.

## **The General Development Code**

Under the General Development Code, Complying Development MAY be carried out on the land.

## **The Commercial and Industrial Alterations Code**

Under the Commercial and Industrial Alterations Code, Complying Development MAY be carried out on the land.

## **The Commercial and Industrial (New Buildings and Additions) Code**

Under the Commercial and Industrial (New Buildings and Additions) Code, Complying Development MAY NOT be carried out on the land within zone RU2 Rural Landscape.

Note: The Commercial and Industrial (New Buildings and Additions) Code only applies to land within zones B1 Neighbourhood Centre, B2 Local Centre, B7 Business Park, IN2 Light Industrial and IN4 Working Waterfront under Kiama Local Environmental Plan 2011.

## **The Container Recycling Facilities Code**

Under the Container Recycling Facilities Code, Complying Development MAY be carried out on the land.

## The Subdivisions Code

Under the Subdivisions Code, Complying Development MAY be carried out on the land.

## The Demolition Code

Under the Demolition Code, Complying Development MAY be carried out on the land.

## The Fire Safety Code

Under the Fire Safety Code, Complying Development MAY be carried out on the land.

## The Inland Code

Under the Inland Code, Complying Development MAY NOT be carried out on the land as the Code does not apply to land in the Kiama Local Government Area.

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4, 4A (Repealed)

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## 4B ANNUAL CHARGES UNDER LOCAL GOVERNMENT ACT 1993 FOR COASTAL PROTECTION SERVICES THAT RELATE TO EXISTING COASTAL PROTECTION WORKS

**In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).**

**Note.** “Existing coastal protection works” are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the *Local Government Act 1993*.

The owner of the land has NOT consented to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to any existing coastal protection works within the meaning of section 553B of that Act.

---

## 5 MINE SUBSIDENCE

**Whether or not the land is proclaimed to be a mine subsidence district within the meaning of the *Coal Mine Subsidence Compensation Act 2017*.**

The land has NOT been proclaimed to be a Mine Subsidence District within the meaning of the *Coal Mine Subsidence Compensation Act, 2017*.

---

## 6 ROAD WIDENING AND ROAD REALIGNMENT

**Whether or not the land is affected by any road widening or realignment under:**

**(a) Division 2 of Part 3 of the *Roads Act 1993*,**

Council is NOT aware that the land is subject to any road widening or realignment under Division 2 of Part 3 of the *Roads Act 1993*.

**(b) any environmental planning instrument,**

The land is NOT affected by any road widening or realignment under any environmental planning instrument.

**(c) any resolution of the council**

The land is NOT affected by any road widening or realignment under any resolution of the council.

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**7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS****Whether or not the land is affected by a policy:**

**(a) adopted by the council, or**

**(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,**

**that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).**

Council has NOT adopted a policy to restrict development of the land because of the likelihood of landslip. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of the likelihood of slip.

Council has NOT adopted a policy to restrict development of the land because of the likelihood of subsidence. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of the likelihood of subsidence.

Council has NOT adopted a policy to restrict development of the land because of the likelihood of bushfire. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of the likelihood of bushfire. Where applicable, Council applies State Government policy contained in the two NSW Rural Fire Services publications titled Planning for Bush Fire Protection and Building in Bush Fire Prone Areas - Single dwellings to development in a bushfire prone area.

Council has NOT adopted a policy to restrict development of the land because of the likelihood of tidal inundation. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of tidal inundation.

Council has NOT adopted a policy to restrict development of the land because of the likelihood of acid sulfate soils. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of the likelihood of acid sulfate soil. However, where land is affected by acid sulfate soils, development may be affected by Clause 6.1 of Kiama Local Environmental Plan 2011.

Council has NOT adopted a policy to restrict development of the land because of the likelihood of any other risk. No public authority has notified Council (for the purpose of reference in planning certificates) that it has a policy to restrict development of the land because of the likelihood of any other risk.



**7A FLOOD RELATED DEVELOPMENT CONTROLS**

- (1) **If the land or part of the land is within the flood planning area and subject to flood related development controls.**
- (2) **If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.**
- (3) **In this clause –**  
***flood planning area* has the same meaning as in the Floodplain Development Manual.**  
***Floodplain Development Manual* means the Floodplain Development Manual (ISBN 0 7347 5476 0) published by the NSW Government in April 2005.**  
***probable maximum flood* has the same meaning as in the Floodplain Development Manual**

The land or part of the land IS NOT within a flood planning area and subject to flood related development controls.

The land or part of the land IS NOT between the flood planning area and the probable maximum flood and subject to flood related development controls.

---

**8 LAND RESERVED FOR ACQUISITION**

**Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.**

The land is NOT affected by the provisions of Kiama Local Environmental Plan 2011 for the acquisition of the land by a public authority, as referred to in Section 3.15 of the Act.

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**9 CONTRIBUTIONS PLANS**

**The name of each contributions plan applying to the land.**

The land MAY BE affected by Indirect Contributions Plan.

The land IS affected by Contributions Plan Nos 1 and 3.

## 9A BIODIVERSITY CERTIFIED LAND

**If the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*, a statement to that effect.**

**Note.** Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

Council IS UNAWARE of any biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*.

---

## 10 BIODIVERSITY STEWARDSHIP SITES

**If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016*, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage).**

**Note.** Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

Council IS UNAWARE that the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016*.

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## 10A NATIVE VEGETATION CLEARING SET ASIDES

**If the land contains a set aside area under section 60ZC of the *Local Land Services Act 2014*, a statement to that effect (but only if the council has been notified of the existence of the set aside area by the Local Land Services or it is registered in the public register under that section).**

Council IS UNAWARE that the land contains a set aside area under section 60ZC of the *Local Land Services Act 2014*.

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## 11 BUSH FIRE PRONE LAND

**If any of the land is bush fire prone land (as defined in the Act), a statement that all or, as the case may be, some of the land is bush fire prone land.**

**If none of the land is bush fire prone land, a statement to that effect.**

The land is NOT shown as bush fire prone land according to the Bush Fire Prone Land Map 2008 supplied by the Rural Fire Service.

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## 12 PROPERTY VEGETATION PLANS

**If the land is land to which a property vegetation plan approved under Part 4 of the *Native Vegetation Act 2003* (and that continues in force), a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).**

Council has NOT been notified of the existence of a property vegetation plan approved under Part 4 of the *Native Vegetation Act 2003* (and that continues in force) applying to the land.

---

## 13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

**Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).**

Council has NOT been notified that an Order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

---

## 14 DIRECTIONS UNDER PART 3A

This section of the Act has been repealed.

---

## 15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

**If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:**

- (a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
  - (i) the period for which the certificate is current, and
  - (ii) that a copy may be obtained from the head office of the Department, and
- (b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

Council is NOT aware of a site compatibility certificate (seniors housing) applying to the land.

---

**16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE, SCHOOLS OR TAFE ESTABLISHMENTS**

**A statement of whether there is a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools or TAFE establishments), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:**

- (a) the period for which the certificate is valid, and**
- (b) that a copy may be obtained from the head office of the Department.**

Council is NOT aware of a site compatibility certificate (infrastructure) or site compatibility certificate (schools or TAFE establishments) applying to the land.

---

**17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING**

**(1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:**

- (a) the period for which the certificate is current, and**
- (b) that a copy may be obtained from the head office of the Department.**

**(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.**

Council is NOT aware of a site compatibility certificate (affordable rental housing) applying to the land.

---

**18 PAPER SUBDIVISION INFORMATION**

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.**
- (2) The date of any subdivision order that applies to the land.**
- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.**

Council is NOT aware of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

---



---

## 19 SITE VERIFICATION CERTIFICATES

**A statement of whether there is a current site verification certificate, of which the council is aware, in respect of the land and, if there is a certificate, the statement is to include:**

- (a) the matter certified by the certificate, and**

**Note.** A site verification certificate sets out the Secretary's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land—see Division 3 of Part 4AA of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

- (b) the date on which the certificate ceases to be current (if any), and**

- (c) that a copy may be obtained from the head office of the Department.**

Council is NOT aware of any current site verification certificate applying to this land.

---

## 20 LOOSE-FILL ASBESTOS INSULATION

**If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989*) that are listed on the register that is required to be maintained under that Division, a statement to that effect.**

Council has NOT been notified that the land is listed on the Loose-Fill Asbestos Insulation Register.

---

## 21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

- (1) A statement of whether there is any affected building notice of which the council is aware that is in force in respect of the land.**

- (2) A statement of:**

- (a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and**
- (b) whether any notice of intention to make a building product rectification order or which the council is aware has been given in respect of the land and is outstanding.**

- (3) In this clause:**

***affected building notice* has the same meaning as in Part 4 of the *Building Products (Safety) Act, 2017*.**

***building product rectification order* has the same meaning as in the *Building Products (Safety) Act, 2017*.**

Council is NOT aware of any affected building notices or building product rectification orders in respect of the land under the *Building Product (Safety) Act, 2017*.

---

## 22 STATE ENVIRONMENTAL PLANNING POLICY (WESTERN SYDNEY AEROTROPOLIS) 2020

This clause does not apply to land in the Municipality of Kiama.

---

LAND SUBJECT TO SECTION 59 (2) OF THE CONTAMINATED LAND MANAGEMENT ACT 1997

**Note.** The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

- (a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

For the purposes of section 59(2) of the Contaminated Land Management Act 1997, Council is NOT aware of the land being significantly contaminated land within the meaning of that Act as at the date when this certificate is issued.

- (b) that the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

For the purposes of section 59(2) of the Contaminated Land Management Act 1997, Council is NOT aware of the land being subject to a management order within the meaning of that Act as at the date when this certificate is issued.

- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,

For the purposes of section 59(2) of the Contaminated Land Management Act 1997, Council is NOT aware of the land being subject of an approved voluntary management proposal within the meaning of that Act as at the date when this certificate is issued.

- (d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

For the purposes of section 59(2) of the Contaminated Land Management Act 1997, Council is NOT aware of the land being subject to an ongoing maintenance order within the meaning of that Act as at the date when this certificate is issued.

- (e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

For the purposes of section 59(2) of the Contaminated Land Management Act 1997, Council is NOT aware of the land being subject to a site audit statement within the meaning of that Act as at the date when this certificate is issued.

For further information, please contact Council's Strategic Planning Department on 02 4232 0444.

All correspondence should be directed to the Chief Executive Officer, PO Box 75, KIAMA, NSW 2533.

Jane Stroud

**Chief Executive Officer**

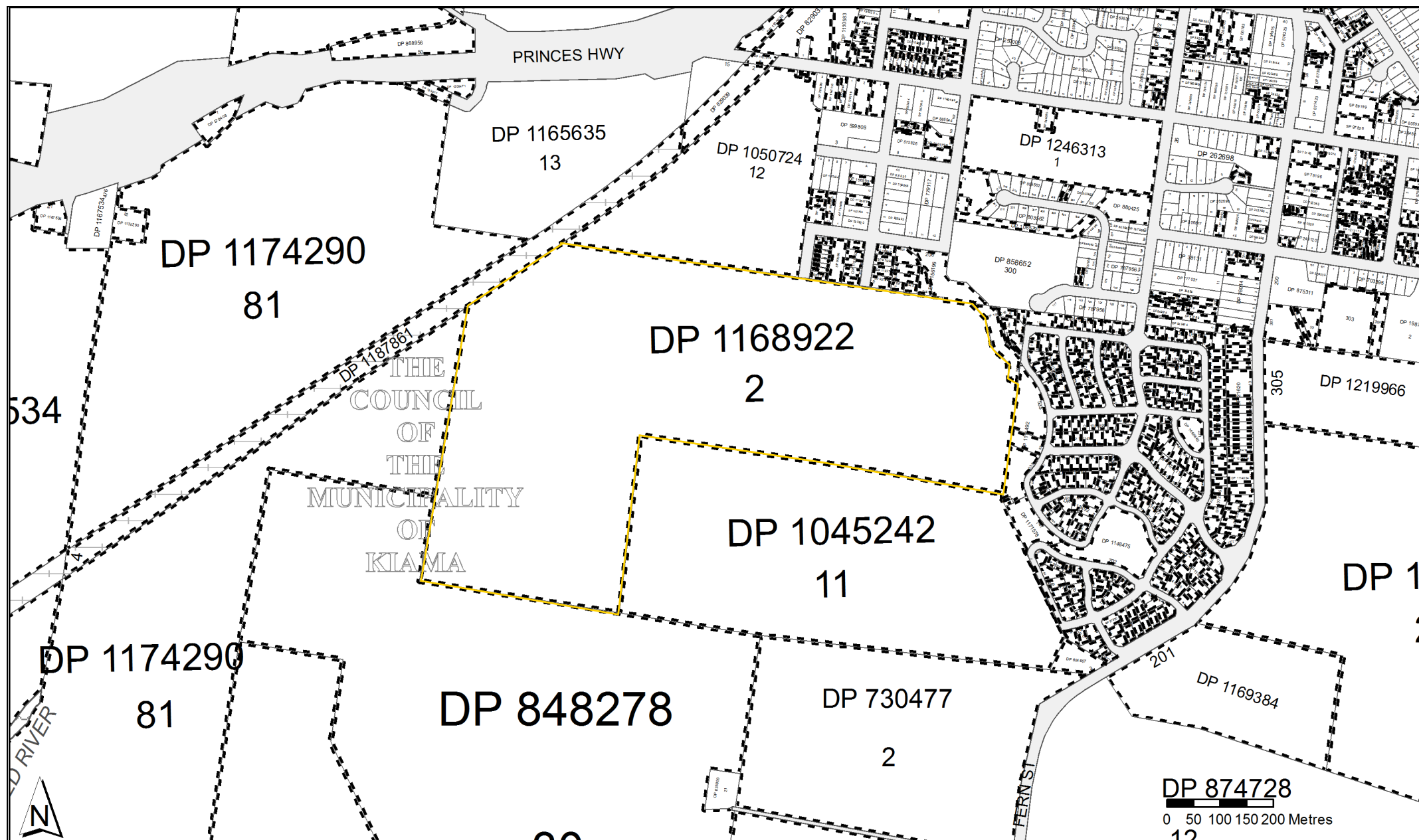
Per:

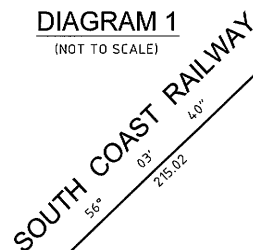
A handwritten signature in blue ink, appearing to be 'J Stroud', written over a horizontal line.

# Appendix E

## TITLES

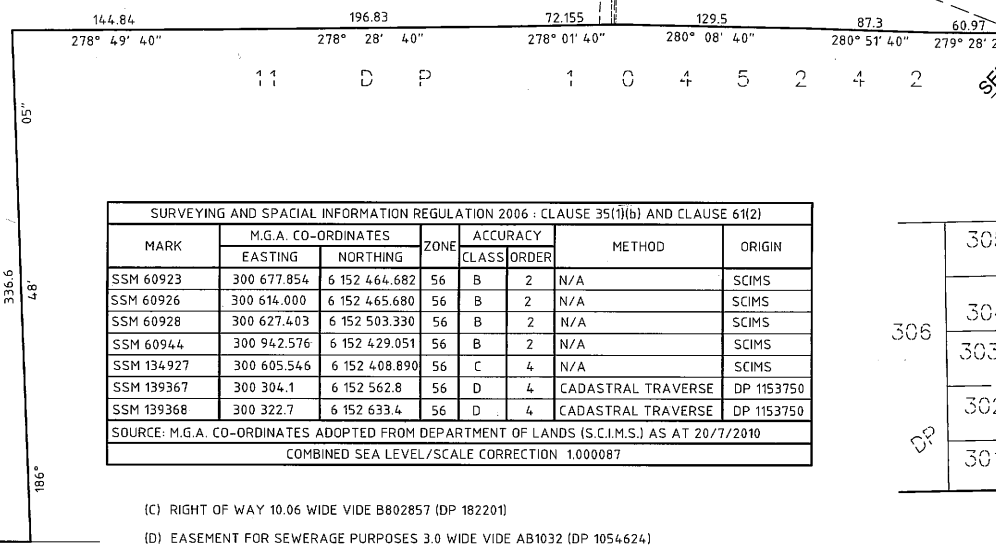






12  
D P 1 0 5 0 7 2 4

2  
45.83ha  
(BY DEDUCTION)



SURVEYING AND SPACIAL INFORMATION REGULATION 2006 : CLAUSE 35(1)(b) AND CLAUSE 61(2)							
MARK	M.G.A. CO-ORDINATES		ZONE	ACCURACY		METHOD	ORIGIN
	EASTING	NORTHING		CLASS	ORDER		
SSM 60923	300 677 854	6 152 464 682	56	B	2	N/A	SCIMS
SSM 60926	300 614 000	6 152 465 680	56	B	2	N/A	SCIMS
SSM 60928	300 627 403	6 152 503 330	56	B	2	N/A	SCIMS
SSM 60944	300 942 576	6 152 429 051	56	B	2	N/A	SCIMS
SSM 134927	300 605 546	6 152 408 890	56	C	4	N/A	SCIMS
SSM 139367	300 304.1	6 152 562.8	56	D	4	CADASTRAL TRAVERSE	DP 115375
SSM 139368	300 322.7	6 152 633.4	56	D	4	CADASTRAL TRAVERSE	DP 115375
SOURCE: M.G.A. CO-ORDINATES ADOPTED FROM DEPARTMENT OF LANDS (S.C.I.M.S.) AS AT 20/7/2010							
COMBINED SEA LEVEL/SCALE CORRECTION 1.000087							

(C) RIGHT OF WAY 10.06 WIDE VIDE B802857 (DP 182201)

(D) EASEMENT FOR SEWERAGE PURPOSES 3.0 WIDE VIDE AB1032 (DP 1054624)

Surveyor : Stephen Leslie Thomas  
Date of Survey : 27/7/2010  
Surveyor's Ref : 25169/256/137

PLAN OF  
SUBDIVISION OF LOT 10 DP 1045242

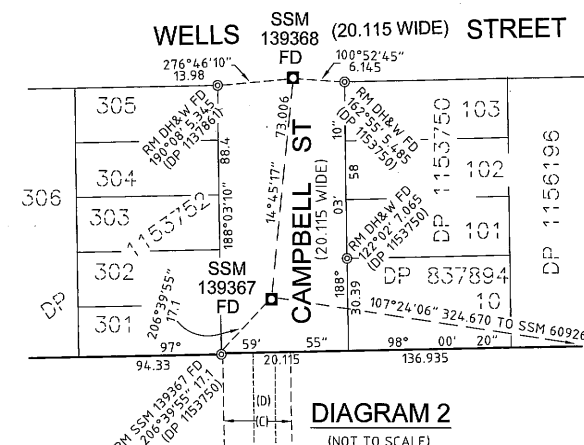
LGA : KIAMA  
Locality : GERRINGONG  
Subdivision No : 17/2011  
Lengths are in metres. Reduction Ratio 1 : 2500

Registered

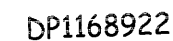
 19.1.2012



DP1168922 P



**DIAGRAM 2**  
(NOT TO SCALE)



DEPOSITED PLAN ADMINISTRATION SHEET

Sheet 1 of 2 Sheet(s)

SIGNATURES, SEALS and STATEMENTS of intention to dedicate public roads, public reserves and drainage reserves or create easements, restriction on the use of land and positive covenants



DP1168922 S

Office Use Only

Registered : 19.1.2012

Title System : TORRENS

Purpose : SUBDIVISION

Office Use Only

PLAN OF

SUBDIVISION OF LOT 10  
DP 1045242

LGA : KIAMA

Locality : GERRINGONG

Parish : BROUGHTON

County : CAMDEN

Survey Certificate

I, STEPHEN LESLIE THOMAS  
of SCARRATT & ASSOC, PO BOX 209, KIAMA, 2533  
a surveyor registered under the Surveying and Spatial Information Act,  
2002, certify that the survey represented in this plan is accurate, has  
been made in accordance with the Surveying and Spatial Information  
Regulation, 2006 and was completed on: 27TH JULY 2010

The survey relates to LOT 1

(specify the land actually surveyed or specify any land shown in the  
plan that is not the subject of the survey)

Signature: [Signature] Dated: 30.08.11  
Surveyor registered under the Surveying and Spatial  
Information Act, 2002

Datum Line: 'A'-'B'

Type: Urban / Rural

Plans used in the preparation of survey / compilation

DP 182201	DP 1088899
DP 787956	DP 1111492
DP 1009361	DP 1137861
DP 1045242	DP 1153750
DP 1052645	DP 1153752
DP 1054624	DP 1156196
DP 1065790	

If insufficient space use Plan Form 6A annexure sheet

Surveyor's Reference: 25169/256/137

AUSTRALIA AND NEW ZEALAND  
BANKING GROUP LIMITED ACN 11 005  
357 522 by its Attorney under Power of  
Attorney Book No. 4465 No. 246

Sign: [Signature]

Name: JANINE DEAN  
Acting/Manager Securities

Witnessed by:

Sign: [Signature]

Name: ANNIE ALI

4/833 Collins Street, Dockland, 3008

If space is insufficient use PLAN FORM 6A annexure sheet

Crown Lands NSW / Western Lands Office Approval

I, [Signature] in approving this plan certify  
(Authorised Officer)  
that all necessary approvals in regard to the allocation of the land  
shown herein has been given.

Signature: [Signature]

Date: [Signature]

File Number: [Signature]

Office: [Signature]

Subdivision Certificate

I certify that the provisions of s.109J of the Environmental Planning and  
Assessment Act 1979 have been satisfied in relation to:

the proposed Subdivision set out herein  
(insert 'subdivision' or 'new road')

\*Authorised Person/ \*General Manager/ \*Accredited Certifier

Consent Authority: KIAMA MUNICIPAL COUNCIL

Date of Endorsement: 9/11/11

Accreditation no: [Signature]

Subdivision Certificate no: 17/2011

File no: 10. 2008. 64

\* Strike through inapplicable parts

DEPOSITED PLAN ADMINISTRATION SHEET

Sheet 2 of 2 Sheet(s)

**PLAN OF**

SUBDIVISION OF LOT 10  
DP 1045242

Office Use Only

**DP1168922**

Office Use Only

Registered :



19.1.2012

Subdivision Certificate No:

17 / 2011

Date of Endorsement:

9 / 11 / 11

Surveyor's Reference:

25169/256/137





LAND  
REGISTRY  
SERVICES

# Historical Title



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

23/8/2021 11:03AM

FOLIO: 1/182201

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 4277 FOL 151

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
18/2/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
13/2/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
19/6/2001	7696209	DEPARTMENTAL DEALING	
12/9/2002	8948159	DISCHARGE OF MORTGAGE	
25/11/2002	DP1045242	DEPOSITED PLAN	FOLIO CANCELLED

\*\*\* END OF SEARCH \*\*\*

Form: 01T  
Release: 2  
www.lpi.nsw.gov.au

# TRANSFER

New South Wales  
Real Property Act 1900



**AA425064A**

**PRIVACY NOTE:** this information is legally required and will become part of the public record

## STAMP DUTY

Office of State Revenue use only

OFFICE OF STATE REVENUE  
(N.S.W. TREASURY)  
1404953 286

NEW SOUTH WALES DUTY  
11-02-2004 0001831220-001  
SECTION 96-ORIGINAL  
NO DUTY PAYABLE

## (A) TORRENS TITLE

Vol 4277 Folio 151

**Folio Identifier 10/1045242**

## (B) LODGED BY

Delivery  
Box

**35D**

Name, Address or DX and Telephone

MORRIS, HAYES & EDGAR

DX 420 SYDNEY PH: 9232-2411 AGENTS FOR

Reference: **B59234 Carter**

CODES

**T**

**TW**

(Sheriff)

## (C) TRANSFEROR

**SUNNYMEDE HOLDINGS PTY LIMITED ACN 001 217 536**

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of \$ 2,150,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE  
TRANSFERRED** WHOLE

(G) Encumbrances (if applicable):

## (H) TRANSFEE

**BARBARA SINCLAIR PEARSE**

(I) **TENANCY:**

(J) **DATE**

17.12.03

Certified correct for the purposes of the Real Property Act 1900  
by the corporation named below the common seal of which  
was affixed pursuant to the authority specified and in the presence  
of the authorised person(s) whose signature(s) appear(s) below.

Corporation: SUNNYMEDE HOLDINGS PTY LIMITED ACN 001 217 536

Authority: section 127 of the Corporations Law

Signature of authorised person:

*[Signature]*  
Name of authorised person: BARBARA SINCLAIR PEARSE  
Office held: (DIR)

Signature of authorised person:

*[Signature]*  
Name of authorised person: NEIL BRUCE CAMPBELL  
Office held: (DIR)



I certify that the person(s) signing opposite, with whom  
I am personally acquainted or as to whose identity I am  
otherwise satisfied, signed this instrument in my presence

Signature of witness:

Name of witness:

Address of witness:

THOMAS JOHN CARTER  
125 PEARCE ST, GERRINGONG

Certified correct for the purposes of the Real  
Property Act 1900 by the transferee.

Signature of transferee:

*[Signature]*

C/T Pkg. B4 205 on 16/2/04

All handwriting must be in block capitals.

NBS LODGED



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

23/8/2021 10:57AM

FOLIO: 10/1045242

First Title(s): OLD SYSTEM

Prior Title(s): 1/182201

Recorded	Number	Type of Instrument	C.T. Issue
25/11/2002	DP1045242	DEPOSITED PLAN	FOLIO CREATED EDITION 1
26/6/2003	DP1054624	DEPOSITED PLAN	
18/2/2004	AA425064	TRANSFER	EDITION 2
26/2/2004	AA452863	TRANSFER	EDITION 3
25/8/2004	AA903414	MORTGAGE	
25/8/2004	AA903415	MORTGAGE	EDITION 4
13/10/2004	AB1032	TRANSFER GRANTING EASEMENT	EDITION 5
19/1/2012	DP1168922	DEPOSITED PLAN	FOLIO CANCELLED

\*\*\* END OF SEARCH \*\*\*

Form: 01TWC  
Release: 4.2  
Licence: 01-05-127  
Licensee: LEAP Legal Software Pty Limited  
Firm name: Carter Ferguson Solicitors

# TRANSFER

without monetary considera

New South Wales  
Real Property Act 1900



AN248925H

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

## STAMP DUTY

Revenue NSW use only

Office of State Revenue (NSW)  
Client No: 142953096 5334  
Duty: EXEMPT Trans No: 9321590-001  
Asst details: 568(1)

## (A) TORRENS TITLE

2/1168922

## (B) LODGED BY

Document Collection Box <b>35D</b>	Name, Address or DX, Telephone, and Customer Account Number if any <b>MORRIS, HAYES &amp; EDGAR</b> DX 420 SYDNEY PH: 9232-2411 AS AGENTS FOR Reference: <u>45410405 CARTER</u>	CODES <b>TZ</b>
---------------------------------------	---	--------------------

## (C) TRANSFEROR

Barbara Sinclair PEARSE, Neil Bruce CAMPBELL and Kelli Anne CAMPBELL

## (D) CONSIDERATION

Pursuant to an Order of the Family Court No SYC4164/2017 dated 15/08/2017

## (E) ESTATE

and as regards the land specified above transfers to the transferee an estate in fee simple

## (F) SHARE TRANSFERRED

## (G) Encumbrances (if applicable):

## (H) TRANSFEE

Barbara Sinclair PEARSE and Neil Bruce CAMPBELL

## (I) TENANCY: Tenants in Common in equal shares

DATE 16 March 2018

## (J) I certify that I am an eligible witness and that the transferor signed this dealing in my presence. [See note\* below]

Signature of witness:

Name of witness: Sally Anne Field  
Address of witness: 20125 Fern Street Gerringong

I certify that I am an eligible witness and that the transferee signed this dealing in my presence.  
[See note\* below]

Signature of witness:

Name of witness: Sally Anne Field  
Address of witness: 20125 Fern Street Gerringong

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee:

## (K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1546523 Full name: ALEXANDER MEADOWS RENDEL Signature: [Signature]

ANNEXURE TO TRANSFER

TORRENS TITLE 2/1168922

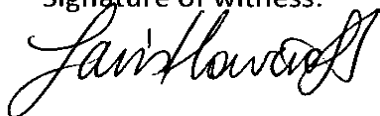
TRANSFEROR Barbara Sinclair PEARSE, Neil Bruce CAMPBELL and Kelli Anne CAMPBELL

CONSIDERATION Pursuant to an Order of the Family Court No SYC4164/2017 dated 15/08/2017

TRANSFeree Barbara Sinclair PEARSE and Neil Bruce CAMPBELL

I certify that I am an eligible witness and that the transferor signed this dealing in my presence.

Signature of witness:



Name of witness:

PARIS HOWCROFT

Address of witness:

20/125 FERN ST  
GERRINGONG NSW 2534

I certify that I am an eligible witness and that the transferor signed this dealing in my presence.

Signature of witness:



Name of witness:

JULIE NESSWORTHY

Address of witness:

SUITE 1501, 370 PITT ST  
SYDNEY NSW 2000

BS

Signature of transferor: X

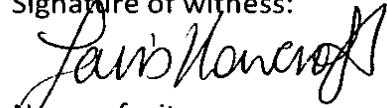


Signature of transferor: X



I certify that I am an eligible witness and  
that the transferee signed this dealing in  
my presence.

Signature of witness:




Name of witness:

PARIS HOWCROFT

Address of witness:

20/125 FERN ST  
GERRINGONG NSW 2534

Signature of Transferee:

BS  




LAND  
REGISTRY  
SERVICES

# Historical Title



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

23/8/2021 10:49AM

FOLIO: 2/1168922

First Title(s): OLD SYSTEM

Prior Title(s): 10/1045242

Recorded	Number	Type of Instrument	C.T. Issue
19/1/2012	DP1168922	DEPOSITED PLAN	FOLIO CREATED EDITION 1
24/4/2013	AH687489	MORTGAGE	EDITION 2
12/4/2018	AN248924	DISCHARGE OF MORTGAGE	
12/4/2018	AN248925	TRANSFER WITHOUT MONETARY CONSIDERATION	EDITION 3

\*\*\* END OF SEARCH \*\*\*



FOLIO: 2/1168922

SEARCH DATE	TIME	EDITION NO	DATE
23/8/2021	10:47 AM	3	12/4/2018

LAND

LOT 2 IN DEPOSITED PLAN 1168922  
AT GERRINGONG  
LOCAL GOVERNMENT AREA KIAMA  
PARISH OF BROUGHTON COUNTY OF CAMDEN  
TITLE DIAGRAM DP1168922

FIRST SCHEDULE

BARBARA SINCLAIR PEARSE  
NEIL BRUCE CAMPBELL  
AS TENANTS IN COMMON IN EQUAL SHARES (TZ AN248925)

SECOND SCHEDULE (3 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 B802857 RIGHT OF WAY 10.06 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 3 AB1032 EASEMENT FOR SEWERAGE PURPOSES 3.0 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*



# Appendix F

## BUREAU OF METEOROLOGY



[Bureau Home](#) > [Climate](#) > [Climate Data Online](#) > Monthly Statistics

## Climate statistics for Australian locations

### Monthly climate statistics

#### All years of record

[About Climate statistics](#) | [Data file of statistics for this site \(CSV\)](#) | [Site selection menu](#)

#### Summary statistics KIAMA (BOMBO HEADLAND)

A summary of the major climate statistics recorded at this site is provided below. There is also an extended table with more statistics available. More [detailed data for individual sites](#) is available.

##### Site information

Site name: KIAMA (BOMBO HEADLAND)  
Site number: 060342  
Latitude: 34.65 °S Longitude: 150.86 °E  
Elevation: 16 m  
Commenced: 2001 Status: Open  
Latest available data: 09 Sep 2021

##### Additional information

Additional site information

##### Nearest alternative sites

- 060338 KIAMA BOWLING CLUB (2.8km)
- 060241 SHELLHARBOUR AIRPORT (11.8km)
- 060553 PORT KEMBLA SIGNAL STATION (20.5km)



Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	Plot	Map
Temperature																
Mean maximum temperature (°C)	25.1	24.9	23.8	22.2	19.8	17.7	17.3	18.0	20.2	21.5	22.8	23.8	21.4	18	2001-2021	
Mean minimum temperature (°C)	19.0	18.8	17.8	15.8	13.1	11.4	10.1	10.8	12.1	14.0	15.7	17.3	14.8	18	2001-2021	
Rainfall																
Mean rainfall (mm)	88.0	133.3	148.3	80.9	81.4	108.4	86.7	70.1	80.8	79.8	67.3	73.8	1027.3	11	2001-2021	
Days 5 (median) rainfall (mm)	89.0	113.8	107.9	86.4	84.2	78.8	83.0	80.2	82.8	88.8	86.0	82.4	1031.8	18	2001-2021	
Mean number of days of rain ≥ 1 mm	7.8	10.0	10.3	8.3	4.6	8.3	8.9	4.8	8.2	7.4	7.0	8.3	88.0	14	2001-2021	
Other daily elements																
Mean daily sunshine (hours)																
Mean number of clear days																
Mean number of cloudy days																
9 am conditions																
Mean 9am temperature (°C)														8	2001-2010	
Mean 9am relative humidity (%)														4	2001-2010	



