

March 2013

LANDSCAPE AND VISUAL ANALYSIS OF 121 RABY ROAD, LEPPINGTON (BEING SP37300), CAMDEN LGA



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1 Landscape and Visual Analysis of 121 Raby Road, Leppington

1.1 Introduction

JMD Design have been commissioned by the landowners to prepare a Landscape and Visual Analysis Report for 121 Raby Road, Leppington being SP37300 Camden LGA ("the Subject Land") as part of a Planning Proposal submission to Camden Council.

The Subject Land is 16.78 hectares and is zoned RU2 Rural Landscape and sits entirely within Camden Council. The property currently contains two residential houses with associated sheds and is divided into a number of paddocks.

The Landowner, wishes to prepare a planning proposal for the site to allow for the subdivision of the land into large lot residential housing, whilst retaining the two existing houses and also maintaining the landscape and visual amenity of the area.

1.2 Purpose of the Report

The purpose of this report is to map existing landscape, visual and scenic qualities of the site and surrounding areas and provide a site analysis and recommendations that will inform the residential planning and development process for the Subject Land.

1.3 Site Context

The Subject Land is located at 121 Raby Road, Leppington and is 13 km north east of Camden Council and 8.4 km north west of Campbelltown Council. The Subject Land fronts on to Raby Road which forms the southern border to the site. The SCA (Sydney Catchment Authority) Water Supply Canal forms the north-western boundary and to the north-east and east the site is bordered by adjacent rural properties.

Currently access to the site is from two separate access driveways along Raby Road.

The Subject Land is located very close to the Camden-Campbelltown municipal boundaries and is separated from this boundary by a thin sliver of privately owned rural land. East of this is the area known as "the Scenic Hills" within Campbelltown LGA.

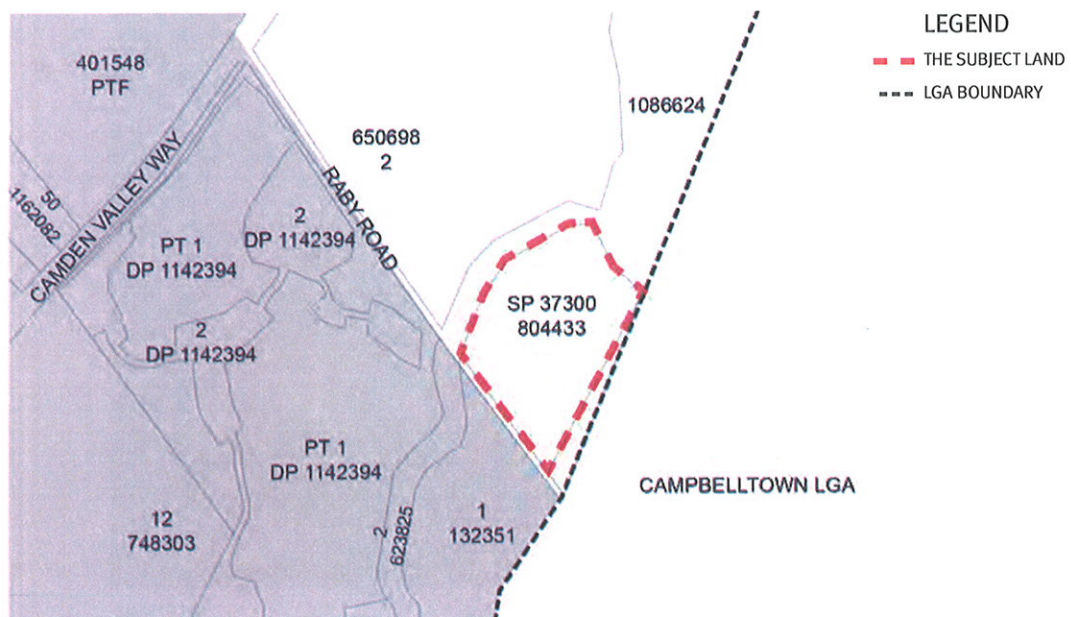


Figure 1.1: Extract from Camden Council Cadastral Plan
(Camden Council, 2011)

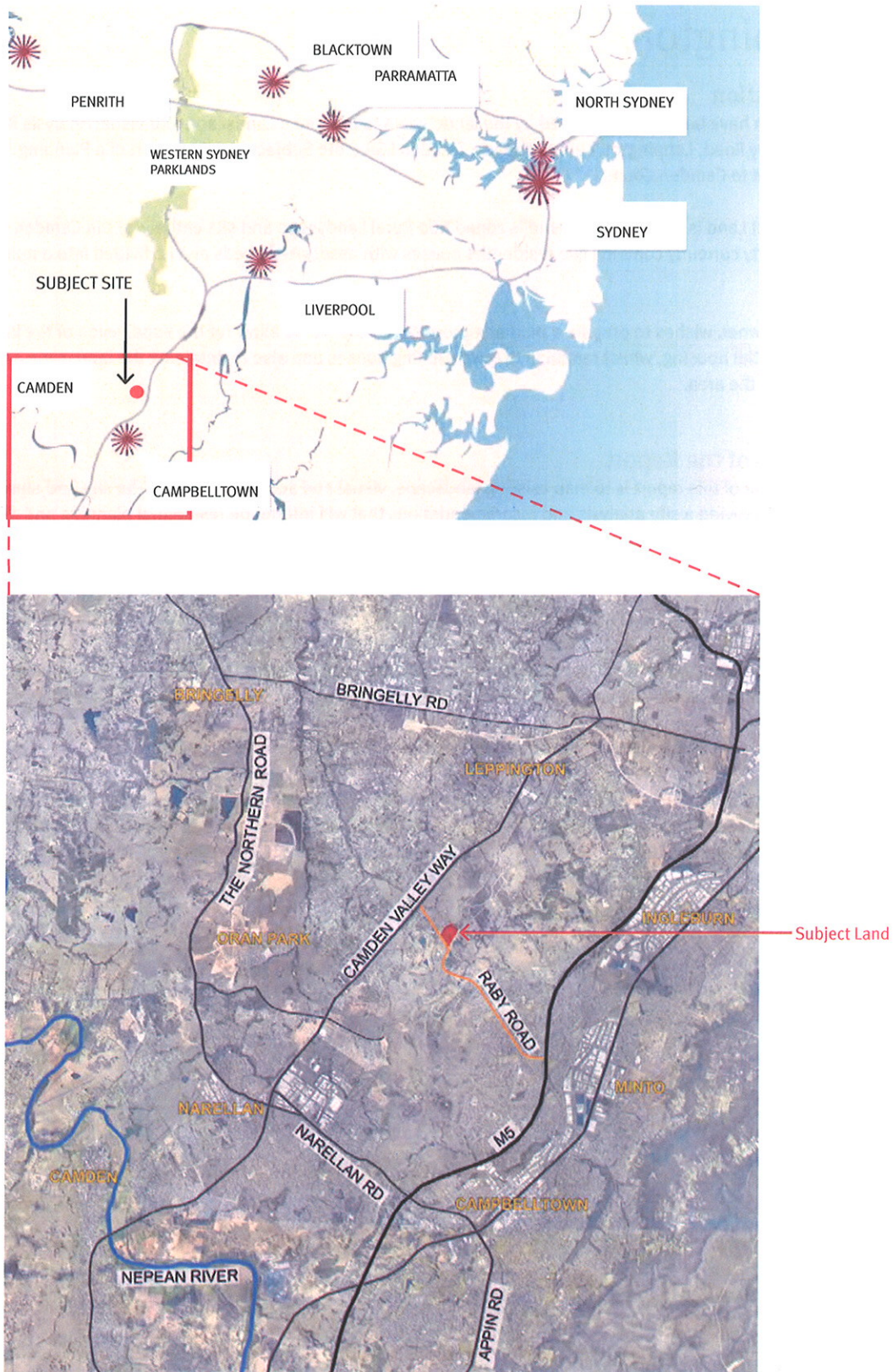


Figure 1.2: Location Map - Local Context & Greater Sydney Area
(NSW Government Department of Planning, 2007)
(Nearmaps, viewed 7 January 2013)

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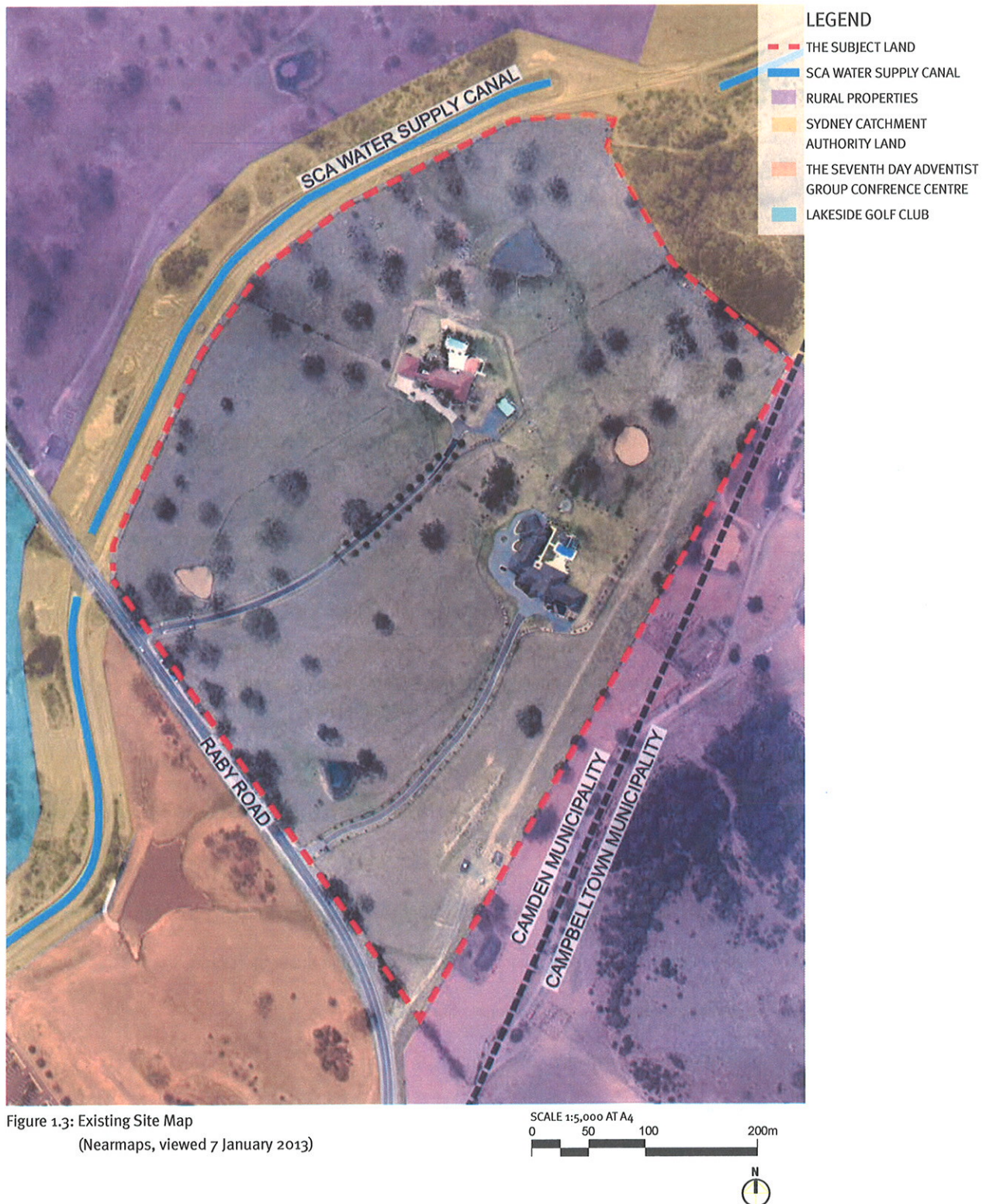


Figure 1.3: Existing Site Map
(Nearmaps, viewed 7 January 2013)

1.4 Project Objectives

The Landowner's requirements for the proposed development of the Subject Land are:

- Achieve staged, orderly development having regard to the site's opportunities and constraints;
- Plan a residential development that is identified as best practice in dealing with the scenic qualities of the surrounding landscape, with any built environments largely "subservient" to such landscape;
- Create a desirable place to live for all ages

1.5 Landscape and Visual Analysis Objectives

The project objectives for the development of the site relating to the landscape and visual analysis are to:

- Assess and identify the landscape qualities of the Subject Land;
- Assess and identify the visual qualities of the Subject Land;
- Ensure that any proposed development of the Subject Land has no or minimal adverse impact on the local and regional visual quality of the area;
- To provide guidelines and recommendations to the proposed future large lot residential development of the Subject Land that will reduce the visual and landscape impact of any proposed development of the Subject Land on the area;
- To ensure as far as reasonable that the two current houses are retained and have reasonable private spaces and outlooks;
- To recommend locations for building envelopes within each new proposed Lot that are sensitive to the sites landform, existing trees and the outlook from the current houses on the Subject Land.

1.6 Methodology

The methodology employed to undertake this landscape and visual assessment involved the following tasks:

1.6.1 Landscape Site Survey and Analysis

- Review of available studies of surrounding landholdings such as Camden Lakeside and Emerald Hills;
- Review of available Camden Council documents relevant to the Subject Land;
- Review of topographic maps and aerial photography;
- Undertake services and utilities search;
- Prepare site analysis diagrams for site geology and soils, topography, hydrology and drainage, vegetation, heritage, land capability, site character, landscape features, and contamination, services, land zonings;

1.6.2 Visual Survey and Analysis

- Detail visual site survey and photography of Subject Land from various viewpoints surrounding the Subject Land to establish a visual catchment;
- Identify and map prominent landscape elements;
- Review existing site photography to plot visibility of the site from viewpoints;
- Review proposals for future development in the area against development proposals for the Subject Land to determine the visual impact on landscape elements;

1.6.3 Opportunities and Constraints

- Prepare opportunities and constraints plan for the Subject Land;

1.6.4 Recommendations

- Provide recommendations and guidelines for future development to ensure the landscape and visual integrity of the site;
- Provide recommendations for locations of building envelopes within each lot to ensure buildings on the Subject Land relate well to each other, the landscape and the existing houses to be retained. Building envelopes will be located to protect vistas from the existing houses and take advantage of views and aspect.

2 EXISTING ZONING

The Subject Lands are currently zoned Rural Landscape RU 2 under the Camden Local Environmental Plan 2010.

Key development standards for the site are 9.5m maximum height of buildings and 40ha minimum lot size.

The land to the east of the Subject Site in Campbelltown LGA is zoned as 7(d1) Environmental Protection (Scenic) known as 'the Scenic Hills'.

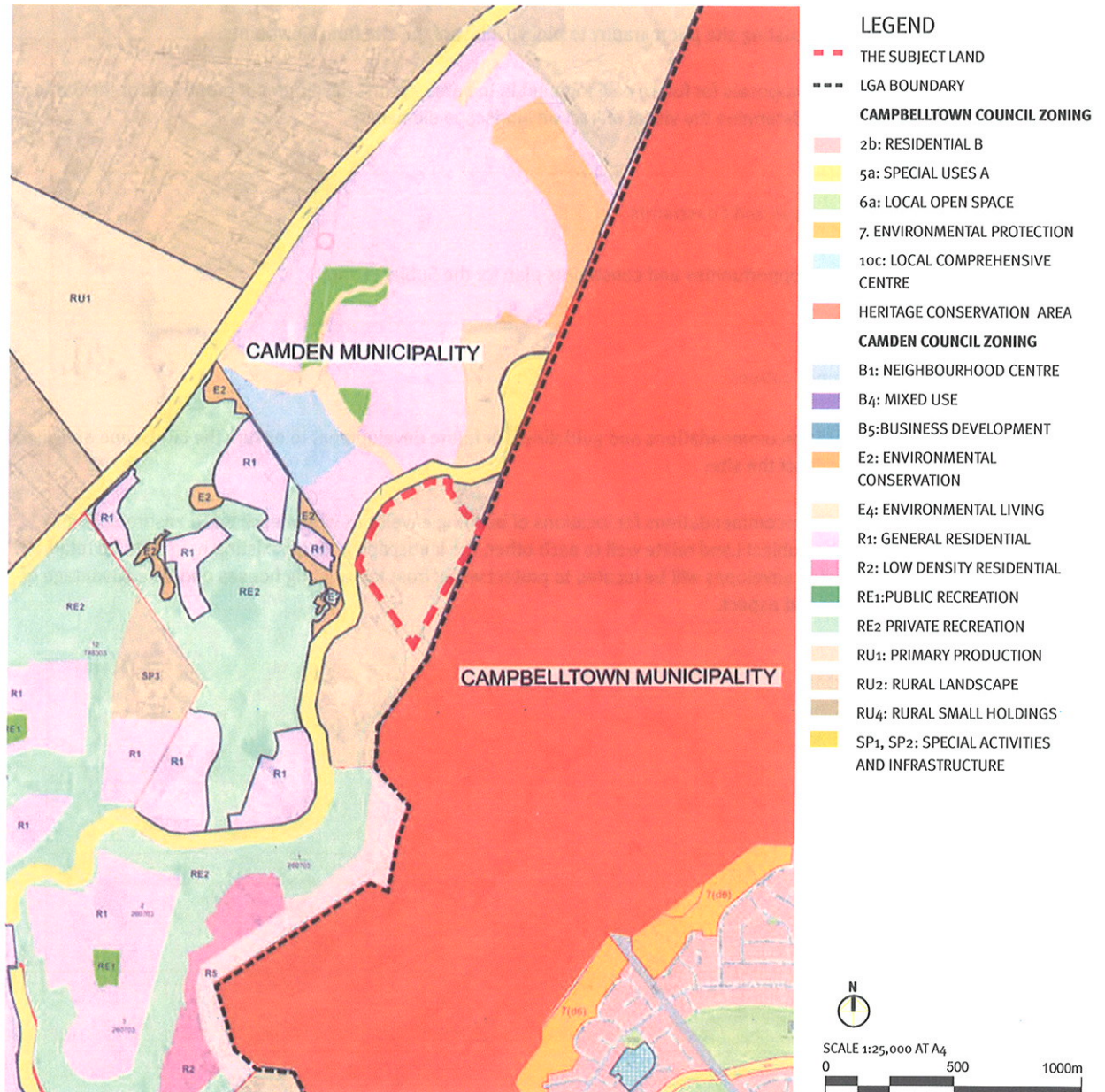


Figure 2.1: Imminent Zoning Map
 (Camden Council, 2009 a, b & c)
 (Campbelltown City Council, 2012 a & b)
 (Inspire – Urban Design and Planning, 2011)
 (Nearmaps, viewed 7 January 2013)
 (NSW Government Department of Planning, 2007)

2.1 Adjoining Land Release History

2.1.1 Land to the South -- 182 -188 Raby Road -El Caballo Blanco /Gledswood / East Side Rezoning

In October, 2005 on behalf of the proponent, Camden Council resolved to prepare an LES and DLEP for the former El Caballo holding and the adjoining lands known as East Side. The total holding consisted of some 160 hectares and built upon a formerly approved convention/golf resort masterplan for the redevelopment of the El Caballo site. In 2009, due to change of ownership, the proponent, submitted a revised masterplan to create a Golf Course Residential Estate including 860 residences and an 18 hole championship golf course.

The development, to achieve economic viability and deliver a desired natural system outcome, was to include several small strategically clustered urban precincts and a major revegetation scheme. The concept revised masterplan focused on the development being located below central ridgelines when viewed from Camden Valley Way, and Raby Road.

The approved masterplan and Planning Proposal (Draft LEP 151) is currently with the Department of Planning for final gazettal.

2.1.2 Land to the West -- Emerald Hills

Located to the immediate north of the site and on the northern corner of Raby Road and Camden Valley Way is a site known as Emerald Hills, 1100-1150 Camden Valley Way, Leppington. The Emerald Hills estate is the subject of a Planning Proposal that obtained Gateway approval in July 2012 and is currently with Camden Council for implementation.

Emerald Hills is approximately 151 hectares and is separated from the Subject Land by the SCA Water Supply Canal which runs along the northwest boundary of the site.

Emerald Hills is proposed to include a range of lands uses including up to 1200 dwellings with a mix of housing types and minimum density of 1200 dwellings, a local shopping centre open space, environmental protection zones, and riparian corridor improvements.

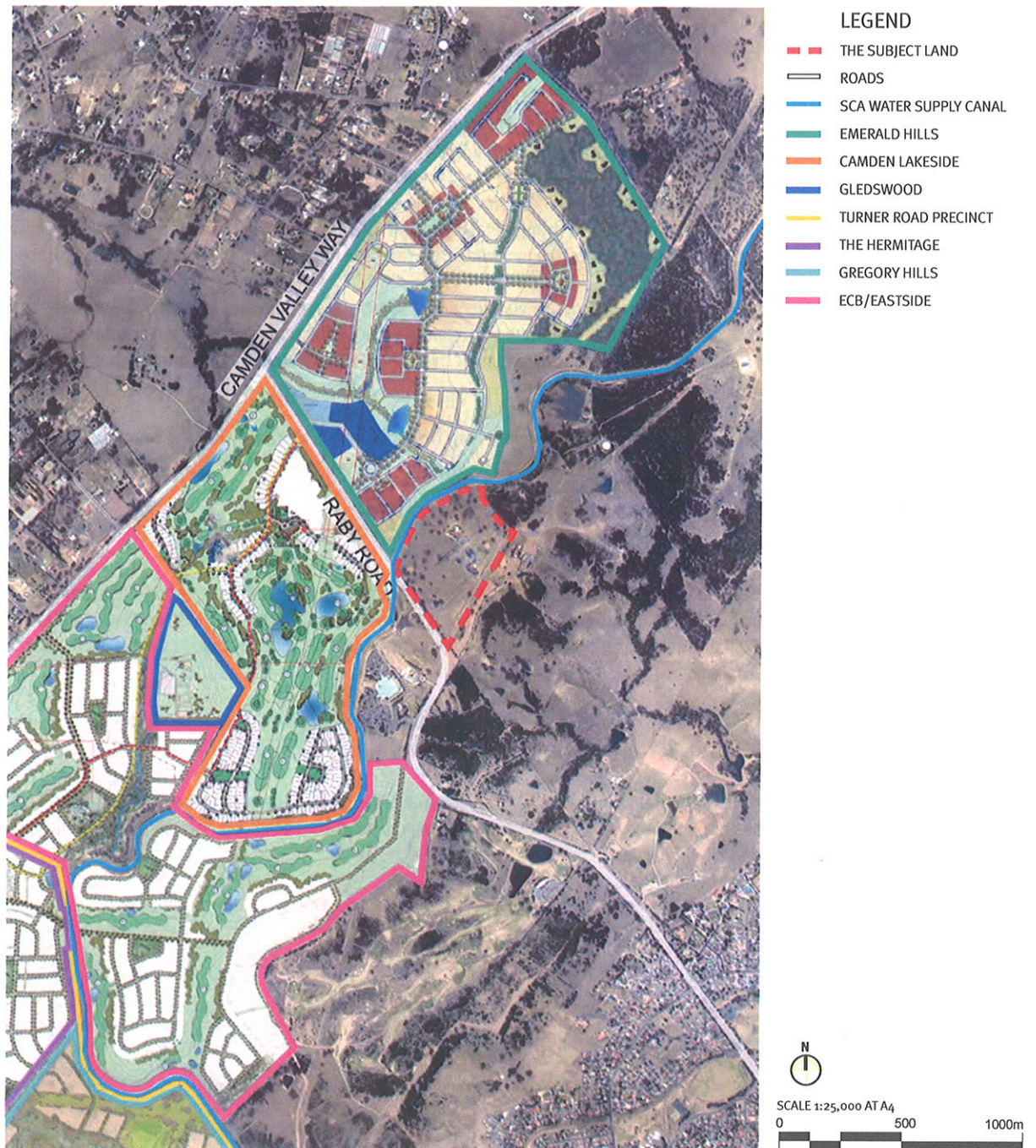


Figure 2.2: Adjoining Land Releases
 (Nearmaps, viewed 7 January 2013)
 (Dart West Developments, 2011)
 (Camden Council, 2006)
 (Inspire – Urban Design and Planning, 2011)
 (LFA, 2006)

3 LANDSCAPE SITE SURVEY AND ANALYSIS

3.1 Context

The Subject Land is located on the rural outskirts of Sydney and on the edge of the rapidly developing South West Growth Area.

The 16.78 hectares site is a roughly diamond shaped piece of land approximately 350metres width by 500metres length. Two significant brick rural residential buildings currently exist on the site.

Raby Road forms the southern boundary to the Subject Land. Immediately south of Raby Road is a large property owned by the Seventh Day Adventist group which operate a conference centre from the property. This site is substantially cleared and contains the conference centre, substantial sealed car parking, caretaker housing and ornamental ponds surrounded by mown grass pastures. West of this is the Lakeside Golf Club which is hidden from view from Raby Road by a thick band of Cumberland Plain Woodland (CPW).

Properties east and west of the Subject Land are currently rural properties. The property to the west is known as Emerald Hills and is the subject of a rezoning application before Camden Council. The property to the east straddles the Camden Campbelltown Local Government boundary and the ridgeline of the Scenic Hills. Both of these properties have stands of remnant vegetation consisting of CPW species.

To the north of the Subject Land is a dense stand of CPW. It is understood that this land is owned by Sydney Water.

Expansive views to the south west and west to the Blue Mountains across the tree canopy are achieved from the highest point of the Subject Land.



Figure 3.1: Panoramic view southwest from the highest point of the site

Elsewhere within the Subject Land extensive views are limited due to the landform and extent of surrounding vegetation and the existing scattered mature trees on site.

Proposals to develop Camden Lakeside (Golf course and residential land), El Caballo Blanco/ Ease Side and Gledswood on Camden Valley Way south of Raby Road and Emerald Hills north of Raby Road will impact the visual quality of the area with up-graded and widened road networks and some vegetation clearing to accommodate new housing and Employment Lands development.

3.2 Climate

The climate at Camden consists of mild to warm summers with a mean maximum of 29.5 degrees celsius in January and mean minimum of 15.1 degrees celsius in December. Winters are mild with a mean maximum of 19.0 degrees celsius in August and mean minimum of 3.0 degrees celsius in July. The annual mean rainfall is 766.5mm with the driest months being July to September with monthly rainfall of about 40mm and the highest rainfall occurring in February of over 100mm per month. (Ref: Bureau of Meteorology Camden Airport AWS -2012)

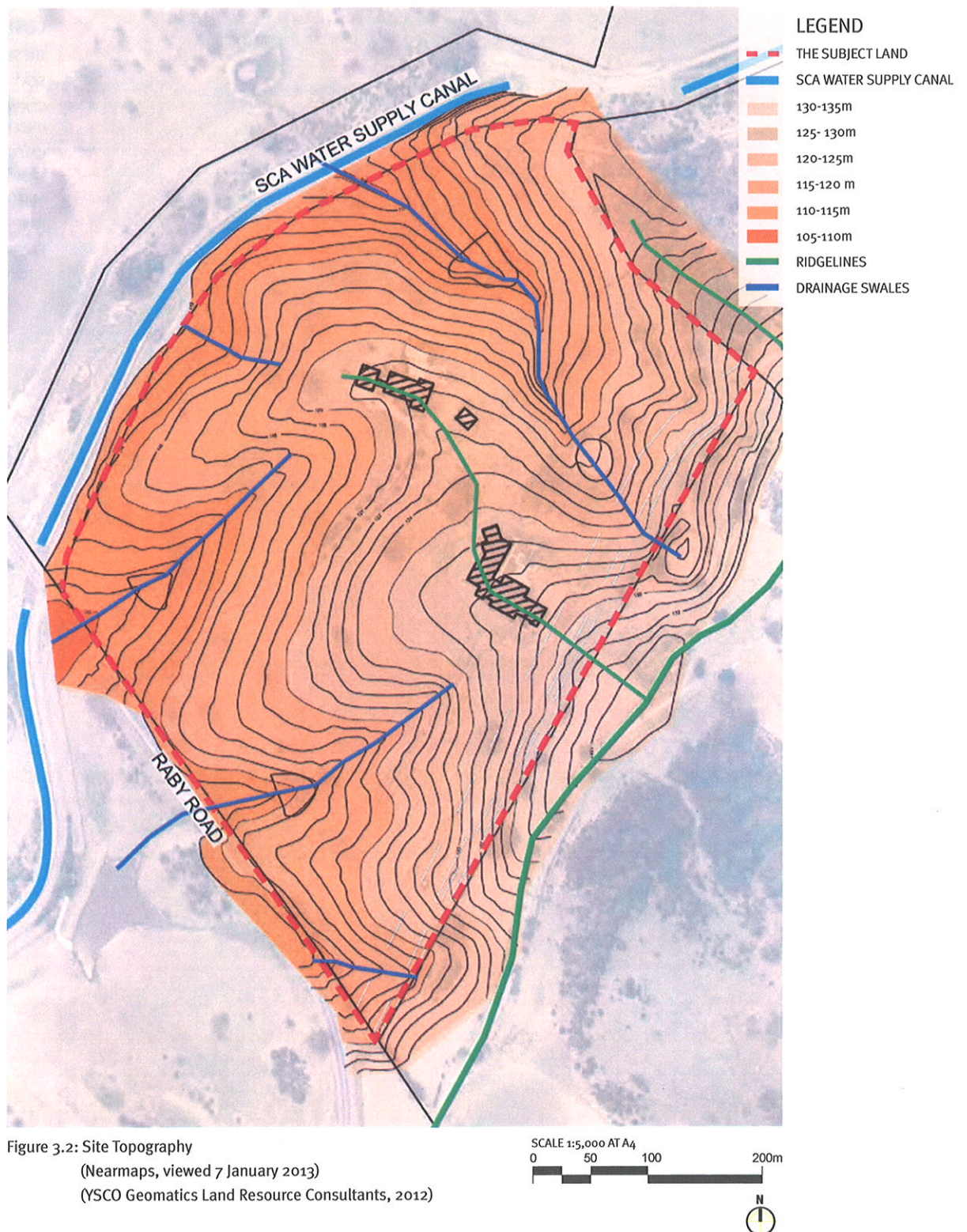
3.3 Topography and Hydrology

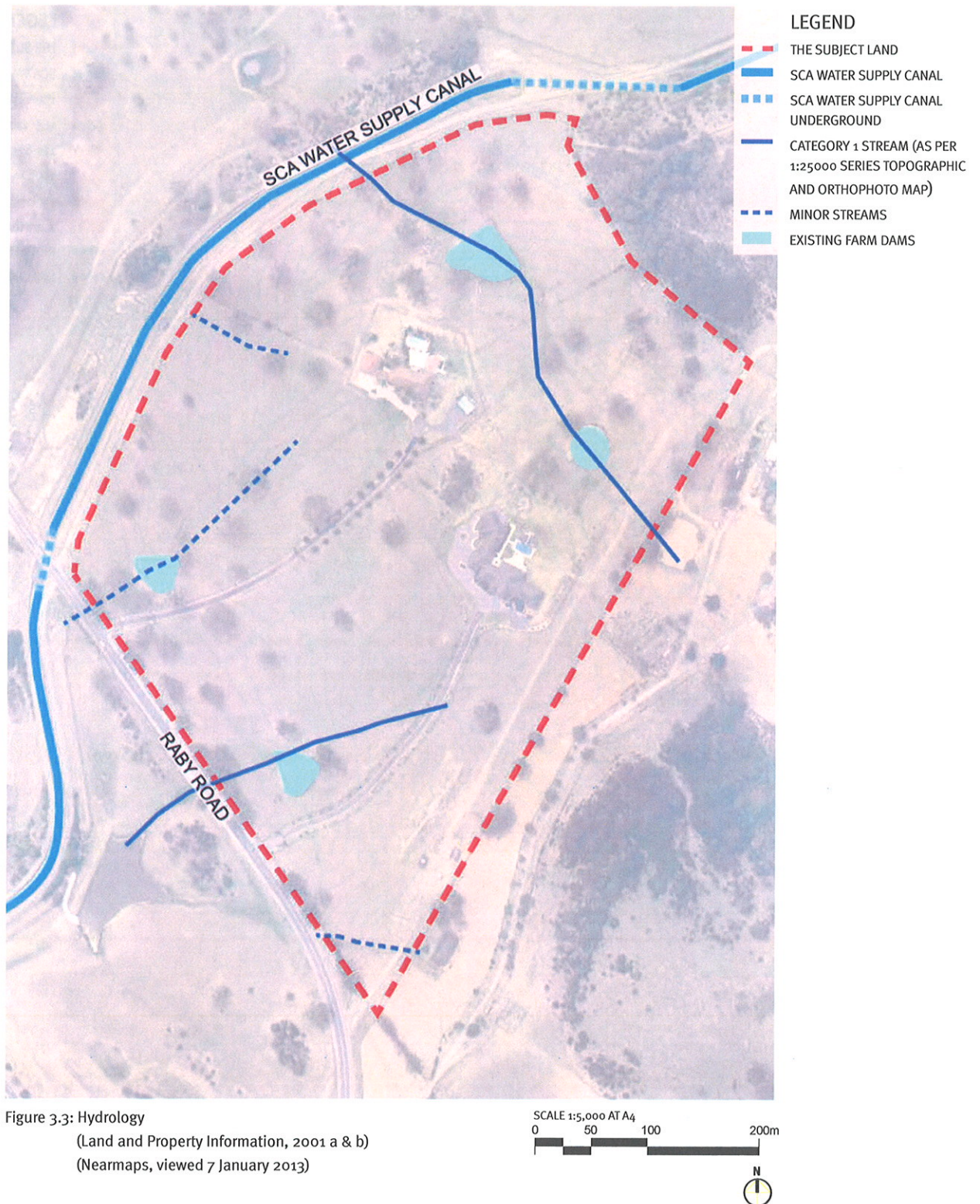
The Subject Land is dominated by a pronounced ridge that runs north south along the eastern edge of the site which forms the Camden Campbelltown LGA boundary. Heights along the ridgeline vary from 119.0m AHD in the south eastern corner of the site to 132.5m AHD midway along the eastern boundary of the site.

The site slopes to the west down to the SCA Water Supply Canal. The canal is an open lined channel originally constructed in the 1880's. Levels along the western edge vary from 110.0m AHD to 120.0m AHD in the north west corner.

There are a number of farm dams that exist in the shallow swales within the property.

There are no significant water courses on the Subject Land although two small streams are indicated on the Campbelltown 1:25,000 and Liverpool 1:25,000 topographic maps. These streams are tributaries of Rileys Creek which flows into South Creek at Rossmore.





3.4 Slope and Aspect

The site has a predominantly westerly aspect overlooking the SCA Water Supply Canal.

The site is consistently sloping. Site slopes vary between 3% and 10% (1V:10H) with a few small area along the drainage lines in excess of 20%.

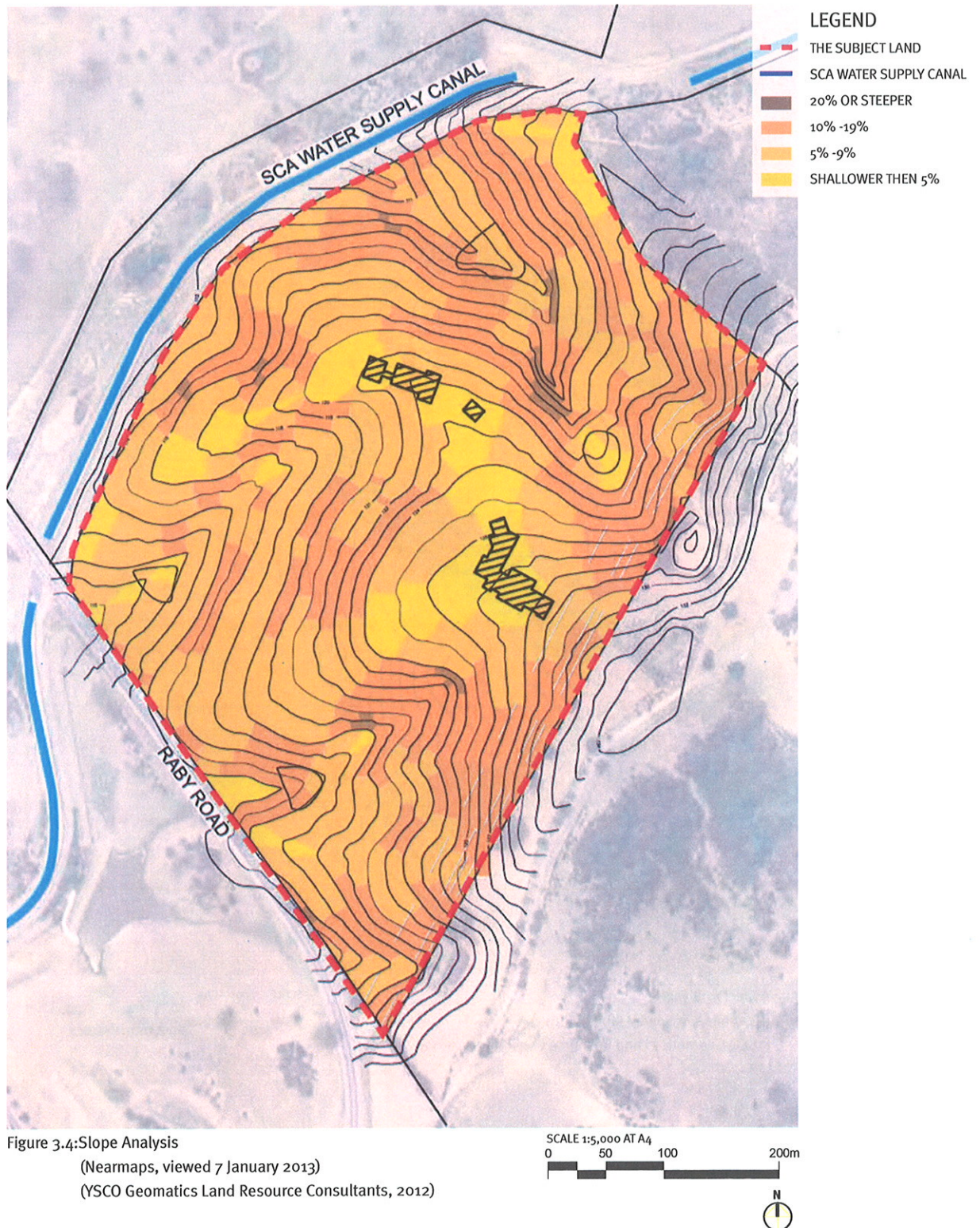


Figure 3.4: Slope Analysis
(Nearmaps, viewed 7 January 2013)
(YSCO Geomatics Land Resource Consultants, 2012)



3.5 Geology and Soils

The geology of the Subject Lands is formed by the Liverpool subgroup of the Wianamatta Group which contains some shale and weak sandstone beds. (Reference: Wollongong 1:250,000 Geological Series Sheet No SI 56-9. NSW Dept of Mines 1966).

The soils of the site are dominated by Blacktown Group (Bt) with Luddenham Group (Lu) occurring at the very eastern edge of the site in the elevated steeper sloping sections of the site (Reference: Wollongong – Port Hacking Soil Landscape Series Sheet 9029-9129. Hazelton P.A., Bannerman S.M., Tillie P.J., 1990)

Soils of the Blacktown Group result in gently undulating hills with slopes of usually less than 5%. Soils are shallow to moderately deep less than 1.0m deep and are hard setting, moderately reactive highly plastic subsoil with low soil fertility and poor soil drainage.

Soils of Luddenham are found on undulating to rolling hills with slopes of 5-20%. Soils are shallow less than 1.0m deep and have a high soil erosion hazard and are moderately reactive highly plastic subsoil with poor soil drainage.

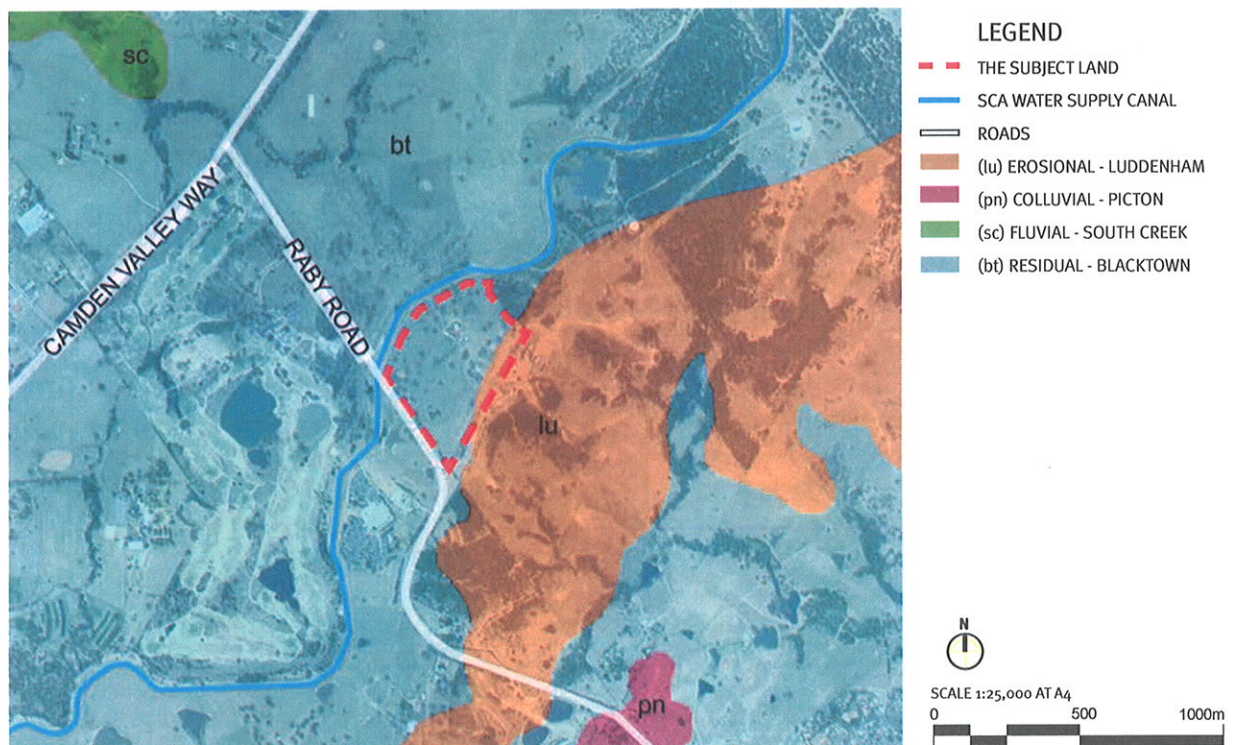


Figure 3.6: Soils

(Hazelton, P.A, Bannerman, S.M, Tillie, P.J, 1989)

(Hazelton, P.A, Bannerman, S.M, Tillie, P.J, 1990)

(Nearmaps, viewed 7 January 2013)

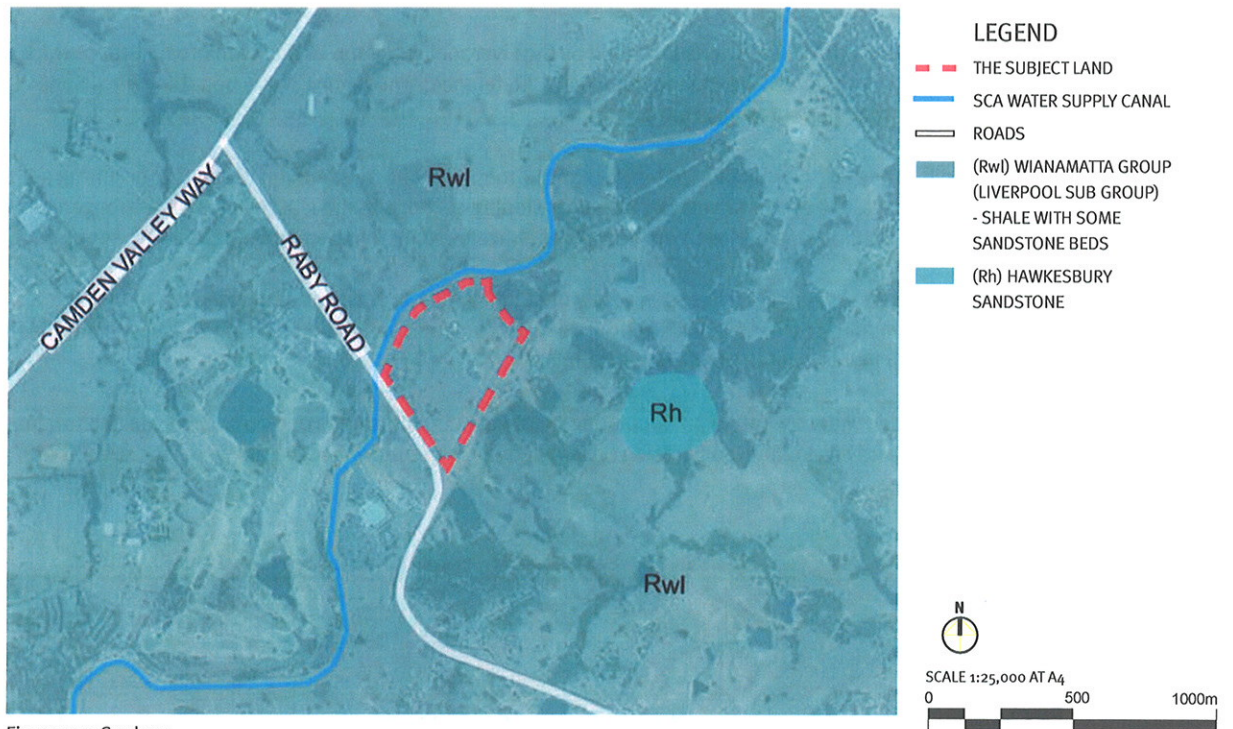


Figure 3.7: Geology

(Nearmaps, viewed 7 January 2013)

Geological Survey of NSW Division and the Bureau of Mineral Resources, Geology and Geophysics, Department of National Development, 1956)

Geological Survey of NSW Division of Regional Geology and Royal Australian Survey Corps, 1996)

3.6 Vegetation

The vegetation of the Subject Land consists of three vegetation types:

- Mown lawns and horticultural gardens;
- Pasture grasses;
- Remnant Cumberland Plain Woodland (CPW).

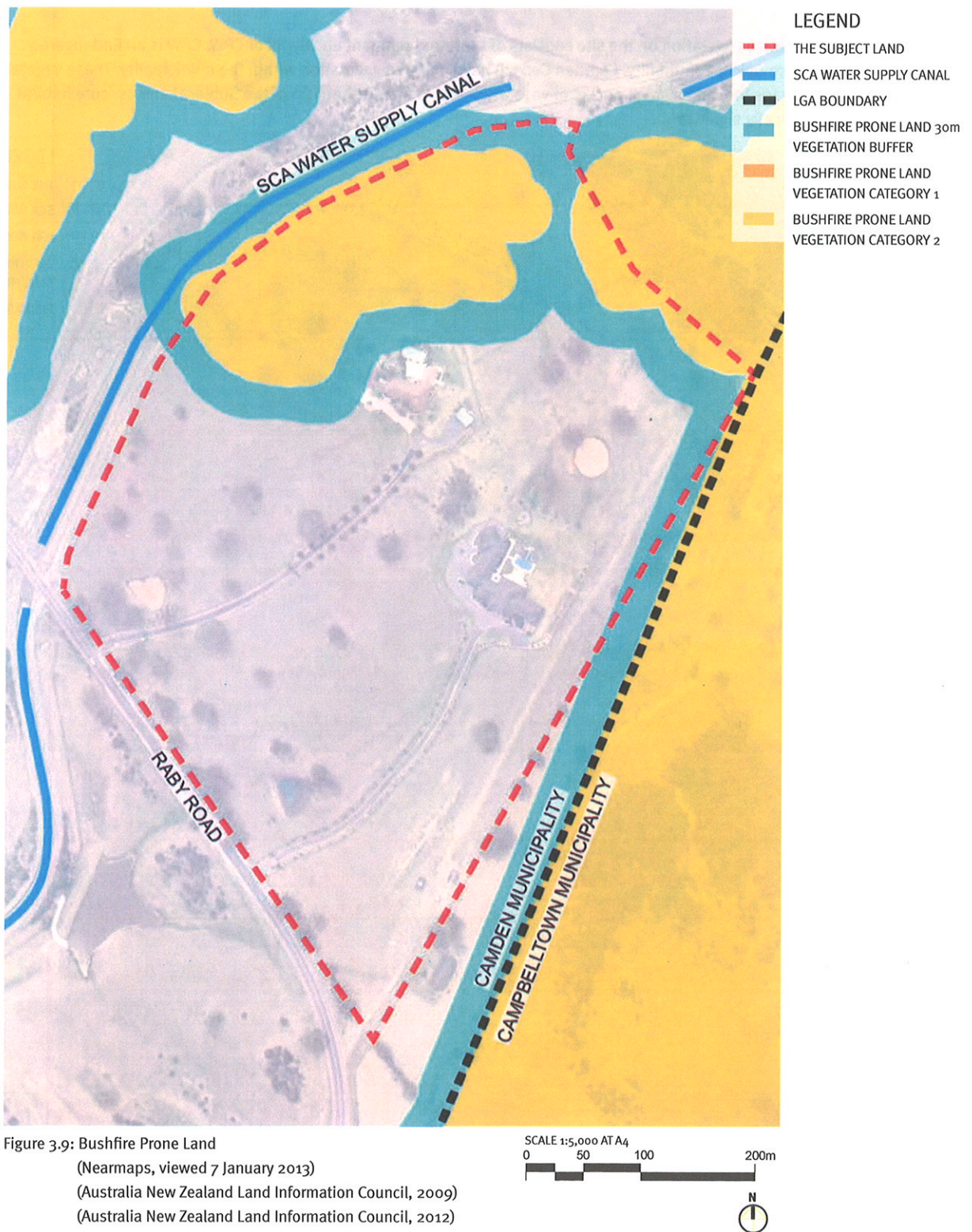
Native vegetation on the site consists of scattered remnant eucalypts of CPW. CPW is an Endangered Ecological Community. Camden Council have mapped vegetation within the municipality. These vegetation maps indicate a small pocket of vegetation within the northern tip of the Subject Land as 'core habitat – locally significant'.



Figure 3.8: Significant Vegetation
(Nearmaps, viewed 7 January 2013)
(Camden Council, n.d.)

3.7 Bushfire Prone land

A northern portion of the Subject Land is identified as Bushfire Prone Land - Vegetation Category 2 (grasslands). However advice has been received that due to the well maintained nature of the site it is not prone to bush fire.



3.8 Indigenous Heritage

The Camden area was settled by the Gundungurra people prior to European settlement with the nearby areas being settled by the Tharawal, Dharug and Wodi-Wodi people. *1

Prior to 1810 there was limited contact between European settlers and Aboriginal peoples in the area. An Aboriginal Cultural Heritage Assessment Report was undertaken by Biosis in July 2012 that covered the Subject Land. No indigenous heritage sites were located within the Subject Site.

3.9 European Heritage

The Subject Land is not listed as a heritage item under Camden LEP 2010 or on the State Heritage Register.

It is noted that the SCA Water Supply Canal immediately adjacent to the western boundary of the site is listed on the State Heritage Register.

3.10 Services

Existing services affecting future planning and use of the Subject Land are:

- Jemena Gas Networks

Jemena have two easements that pass along the length of the site, a 6m wide easement that contains a 34inch diameter pipe carrying methane, within a 24.385 wide easement.

Restrictions as to activities within the easement are as follows:

Under the terms and conditions of the pipeline affectation, and to maintain the integrity and safe operation of the pipeline it is necessary for Jemena to control a number of activities including:

- a) Carrying out any excavation, blasting or earthworks within the affectation pipeline area.
- b) Altering or disturbing existing levels, gradients or contours of the land within the pipeline affectation area.
- c) Constructing any improvements or installations on the affectation area.
- d) Using the pipeline affectation area for transport or parking of any heavy vehicles or equipment (e.g. vehicles with axle loading in excess of 8 tonnes per axle), and
- e) Planting or cultivating trees of any kind upon the pipeline affectation area within 5m of the pipeline.

- SCA Water Supply Canal Easement

The western boundary of the Subject Land is formed by the SCA Water Supply Canal. The presence of and views to the canal are of interest however access to this area and adjacent land uses are strictly controlled. SCA has issued DCP guidelines for development adjacent to the SCA Water Supply Canal for other Developments adjoining the SCA land in the area which may be applicable to the Subject Land.

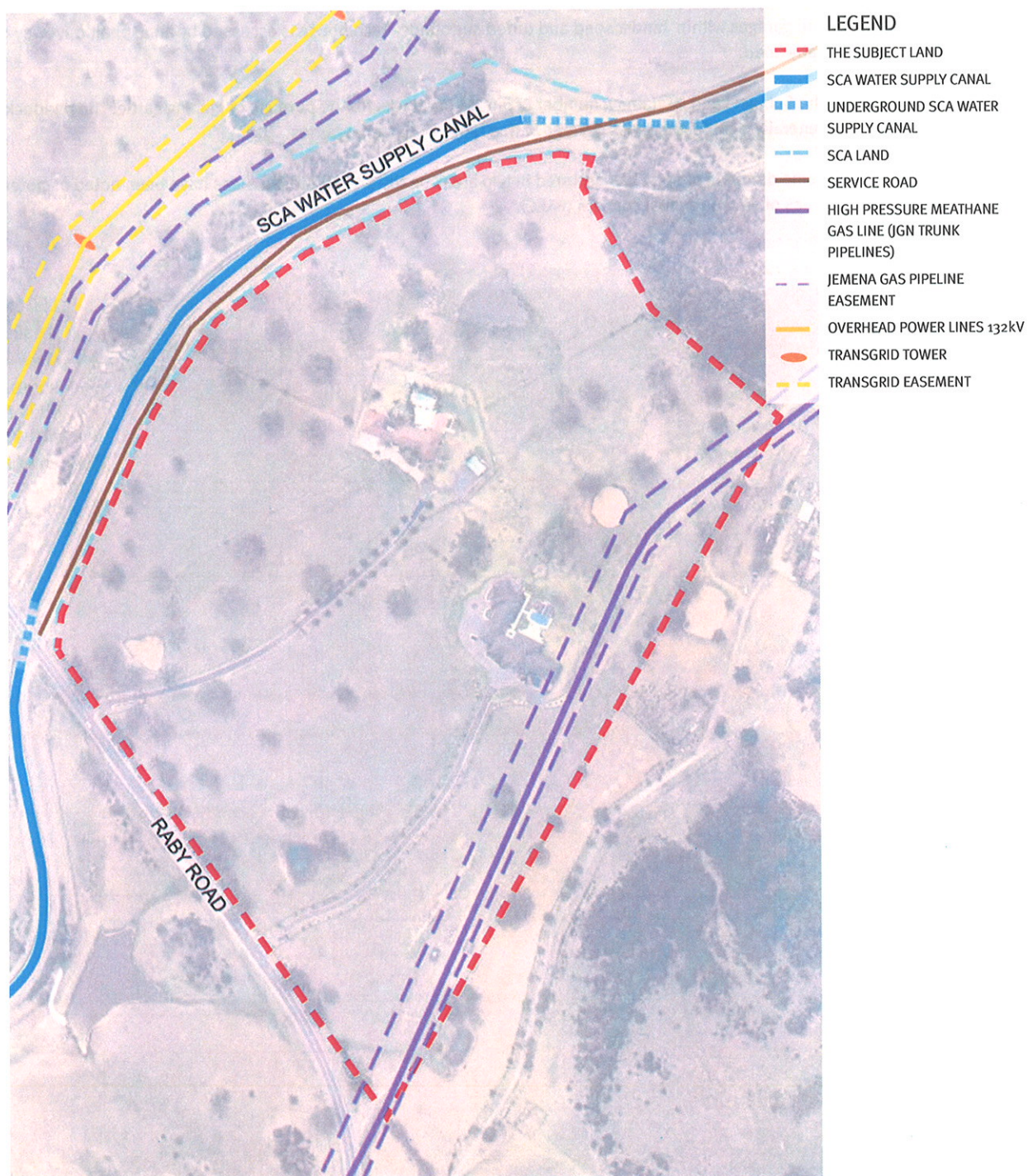


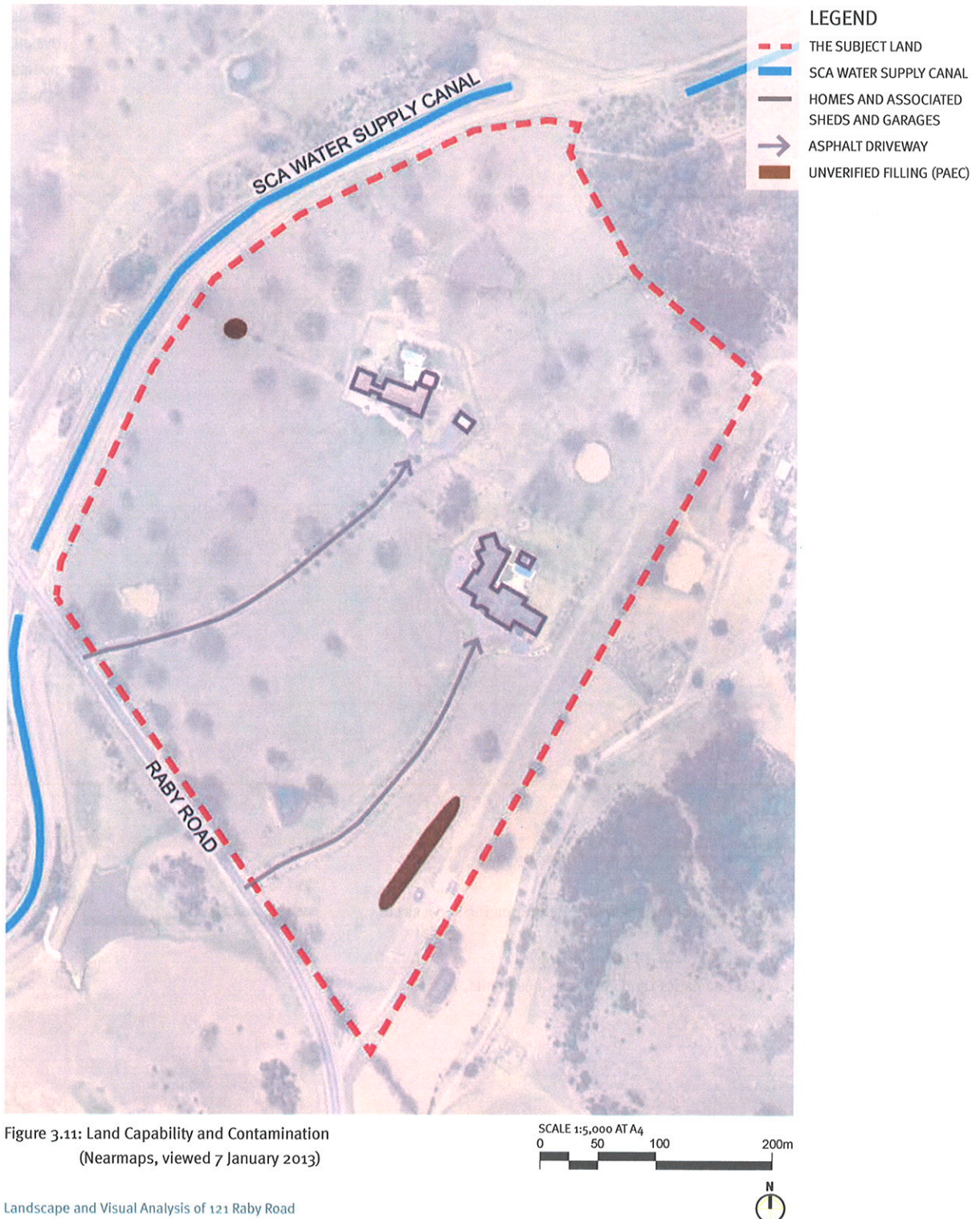
Figure 3.10: Services
 (Association of Australian Dial Before You Dig Services Ltd, 2011)
 (Nearmaps, viewed 7 January 2013)
 (YSCO Geomatics Land Resource Consultants, 2012)

3.11 Land Capability and Contamination

The Subject Land currently contains two significant brick and tile homes with pools and associated sheds and garages within landscaped and turfed surrounds. Each house is accessed by an asphalt driveway off Raby Road.

The Subject Land contains a number of fenced paddocks for the purpose of grazing cattle. The paddocks are generally cleared and grass covered with a range of pasture grasses.

Some dumping of spoil has occurred in two areas on the site and these areas have been noted as potential areas of environmental concern (PAEC).



3.12 Landscape Character

The landscape character of the Subject Land has an Arcadian feel with gently rolling hills, rustic fencing and paddocks dotted with mature trees.

The character of the lower portion of the site is fairly contained by the landform rising to the east and the surrounding vegetation of the Emerald Hills site and the Lakeside Golf Course.

The upper areas of the site has more expansive views to the south and west over the tree canopy.

There are limited view opportunities to the east due to the ridgeline marking the western extent of the 'Scenic Hills'.

The SCA Water Supply Canal is of visual interest within the area however this feature is not situated on the Subject Land.

Currently planning proposals are in Camden Council affecting the Emerald Hills and ECB/ Gledswood/ East Side Lands sites that will significantly change the landscape to the west and south of the Subject Land from a rural landscape to a more urban landscape.

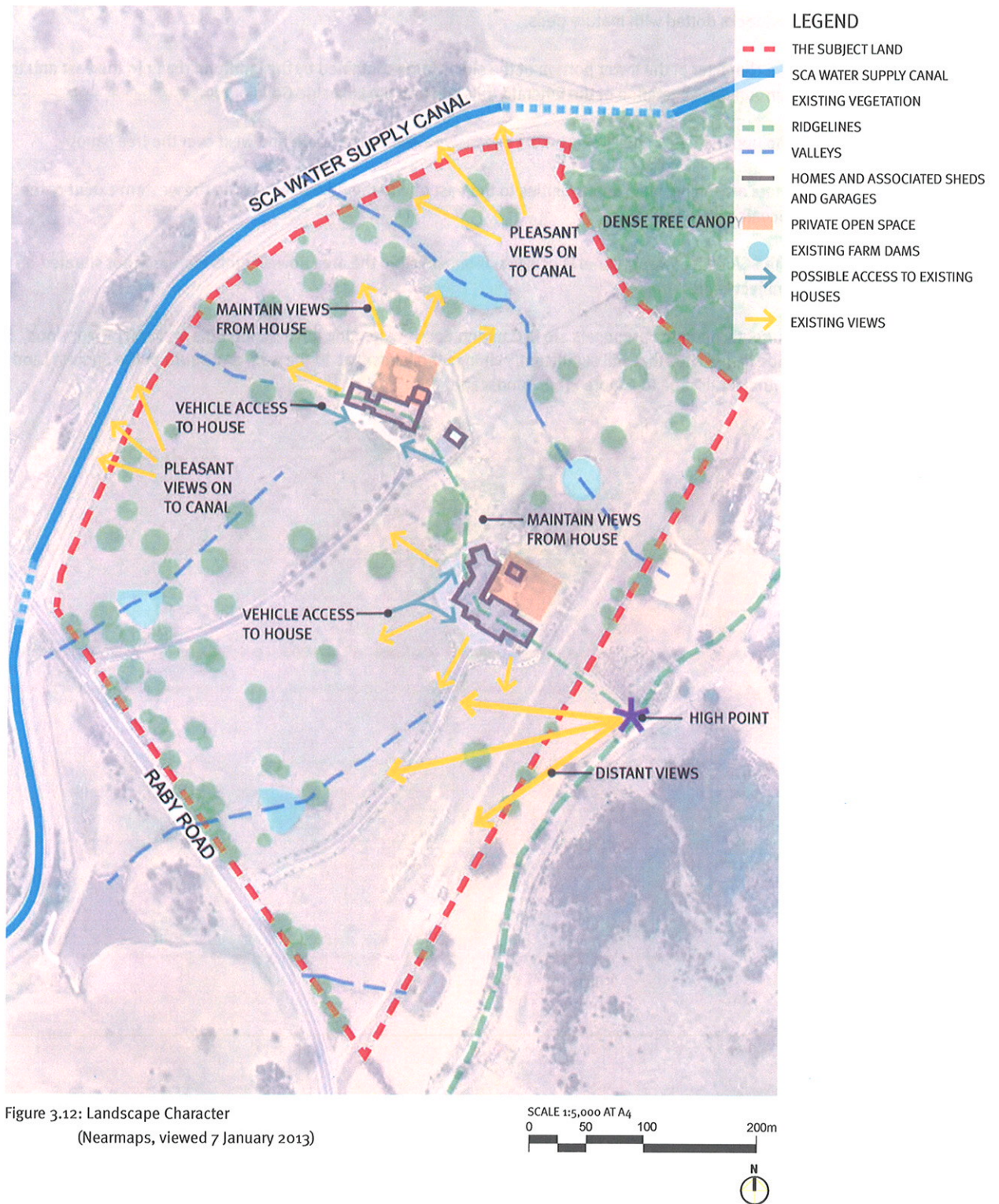


Figure 3.12: Landscape Character
(Nearmaps, viewed 7 January 2013)