



PRELIMINARY ENVIRONMENTAL
ASSESSMENT
1-8 NIELD AVENUE
GREENWICH

Environmental Consulting Services Pty Ltd
April 2008

A blue ink handwritten signature, appearing to be 'S. Caples', written in a cursive style.

Simon Caples



Executive Summary

Environmental Consulting Services Pty Ltd (ECS) was engaged by Waterbrook at Greenwich Pty limited to undertake a preliminary environmental site assessment of the properties known as 1-8 Neild Avenue in Greenwich. The purpose of this preliminary assessment is to evaluate the potential for site contamination resulting from past site activities prior to redevelopment of the land.

Work undertaken by ECS to meet this objective included the following a review of the site history, a review of the regional geology and hydrogeology and a site inspection. The site and surrounding land appears to have been used for residential purposes for at least sixty years and prior to that for farming. These uses are not generally associated with land contamination and there is no evidence of significant filling of the land.

The assessment activities did not identify land uses that are considered likely to result in site contamination. This site is considered suitable for the proposed hospital and for residential development.

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1.0 INTRODUCTION

Environmental Consulting Services Pty Ltd (ECS) was engaged by Waterbrook at Greenwich Pty limited to undertake a preliminary environmental site assessment of the properties known as 1-8 Nield Avenue in Greenwich. The purpose of this preliminary assessment is to evaluate the potential for site contamination resulting from past site activities prior to redevelopment of the land. This assessment has been conducted in accordance with *Planning Guidelines SEPP 55 – Remediation of Land* and should be considered during the evaluation of the development proposal for the land.

The proposed development is understood to be for a Hospital facility consisting of a variety of a 3 to 6 storey building with associated car parking and driveways.

1.1 Scope of Work

The objective of this preliminary environmental site assessment was to evaluate the potential for contamination resulting from past and present uses of the site specifically in relation to the proposed development of the land. Work undertaken by ECS to meet this objective included the following:

- Review information regarding the site history;
- Review regional geology and hydrogeology;
- Undertake a site inspection; and
- Prepare a report that evaluates the potential for the presence of contamination that may need remediation for the proposed redevelopment of the site.

1.2 Site Identification

The site is known as 1-8 Nield Avenue in Greenwich and has a total area of approximately 7,570m². The property descriptions of the land that is incorporated within the site are:

- Lot 1, DP 26707 (No. 1 Nield Avenue);
- Lot 2, DP 26707 (No. 2 Nield Avenue);
- Lot 3, DP 26707 (No. 3 Nield Avenue);
- Lot 41, DP 55753 (No. 4A Nield Avenue);
- Lot 42, DP 55753 (No. 4B Nield Avenue);
- Lot 5, DP 26707 (No. 5 Nield Avenue);
- Lot 6, DP 26707 (No. 6 Nield Avenue);
- Lot 7, DP 26707 (No. 7 Nield Avenue);
- Lot 1, DP 535088 (No. 7A Neild Avenue);
- Lot 8, DP 397302 (No. 8 Neild Avenue); and

- Part of the Neild Avenue road reserve and the pedestrian pathway between Neild Avenue and Morven Gardens.

The location of this site is presented on Figure 1 – Location plan and the lots are shown on Figure 2 – Site plan. An aerial photograph of the site is shown in Figure 3 – Aerial Photo (Google).

1.3 Site Description

This site consists of properties that form a cul-de-sac directly off the Pacific Highway in Greenwich. High density residential developments are located on either side of Neild Avenue at the intersection with the Pacific Highway with additional residential and commercial developments fronting the highway to the north west and south east.

The site slopes relatively steeply to the south west and is approximately 1km north of Sydney Harbour. Gore Creek is located approximately 500m to the west of the site within Lane Cove Bush Park. Gore Creek discharges into Sydney Harbour to the south of the site

Land surrounding the site is predominantly developed for residential purposes. However, across the Pacific Highway to the north and east of the site is a TAFE college and Gore Hill Cemetery. The surrounding residential development is dominated by ‘standard’ residential dwellings ranging from Federation to modern houses.

Address	Area (m ²)	Improvements	Comments
1 Neild Ave.	620	2 storey house	Some cut & fill
2 Neild Ave.	620	1 storey house/garage beneath	Some cut & fill
3 Neild Ave.	714	1 storey house/garage beneath	Some cut & fill
4A Neild Ave.	756	2 storey house	Minor filling
4B Neild Ave.	689	2 storey house	Minor filling
5 Neild Ave.	873	2 storey house	Minor filling
6 Neild Ave.	544	2 storey house	Minor filling
7 Neild Ave.	594	1 storey house/garage beneath	Minor filling
7A Neild Ave.	629	2 storey house	Minor filling
8 Neild Ave.	531	2 storey house	Minor filling

1.4 Regional Geology

The local geology has been described in the 1:100 000 Sydney geological map (series

sheet 9130) being Triassic age Ashfield Shale of the Wianamatta Group. These shales weather to clays with relatively low permeability.

Groundwater at this site is anticipated to be between 3-6m below ground level within the shale bedrock. Groundwater is generally not extracted from the Ashfield Shale as the permeability of the rock (and thus the potential yield of a well) is relatively low. In addition groundwater quality within the shale can be relatively low.

1.5 Data Quality Objectives

The data quality objectives for this preliminary environmental site assessment are summarised in the following table.

Problem	It is proposed to redevelop the site for residential purposes. The potential for site contamination from current or past site uses needs to be considered during the planning process.
Decision	Evaluate the potential for contamination which could result increase human health or environmental risks with respect to the proposed development of the site.
Inputs	Site usage and potential human health and environmental risks associated with current and proposed site use. Site conditions.
Boundaries	The site area. The proposed site development.
Decision Rule	Identification of potential current conditions that may have impact on the proposed development and need management/intervention during the planning process.
Data Design	Consideration of known impacts associated with specific land uses.

2.0 SITE HISTORY

Settlement in the municipality of Lane Cove was initiated with the first land grants in the 1790's and the area was a source of timber. Through the 19th century farms and dairies were established in the area.

Industrial development in the region started with soap and candle factories in Longueville and tanneries in Burns Bay. Industrial development in Greenwich was limited. However, the Shell Australia oil terminal at Gore Cove was established in 1903 as John Fell and Company Limited, oil refiners, blenders and distributors. The Gore Hill cemetery, which is located approximately 100m to the east of the site was established in 1868 with the first recorded burial in 1877 and the last in 1974.

Development on the site appears to have been initially farming and the land was encompassed in the Nichols subdivision as shown on 1869 parish map. Subsequent land use appears to have been for residential purposes.

A review of aerial photographs was undertaken to assess the past uses of this site.

The earliest photograph reviewed was from 1943. This photograph clearly shows the land is partly undeveloped 'bush' and partly residential. Subsequent photographs show some changes to the appearance of buildings, the number of buildings and the locations of building although all photos appear to show only residential development on the site. A copy of the 1943 aerial photograph is included in Appendix 1.

3.0 ASSESSMENT CRITERIA

The NSW Environment Protection Authority (EPA) have issued a number of guidelines relevant to the assessment of sites for potential impacts from past usage which are used in conjunction with the Australian and New Zealand Environment Conservation Council (ANZECC) (1992) – *Guidelines for the assessment and management of contaminated sites*, and the National Environmental Protection Council (NEPC) (1999) — *National environment protection (assessment of site contamination) measure 1999*. Relevant guidelines include:

- NSW EPA (1997) - *Contaminated sites: Guidelines for Consultants Reporting on Contaminated Sites*
- National Environmental Protection Council (NEPC) (1999) — *National environment protection (assessment of site contamination) measure 1999*

4.0 SITE INSPECTION

During the site inspection undertaken for this preliminary environmental site assessment the existing houses on the site were estimated to be up to 50-60 years old although some houses appear to be only approximately 30-40 years old. Associated with some of these houses is some cut and filling of the land to create level areas.

At the time of inspection geotechnical drilling activities were being undertaken. This investigation confirmed the geology at the site consists of shale overlain with residual clay soil derived from the weathering of the shale. Fill at the site appears to be consistent with the natural soils in the area. There is no indication of significant volumes of imported fill of unknown origin.

5.0 CONCLUSIONS

The preliminary environmental assessment results in following conclusion regarding the potential for contamination from past site activities at 1-8 Neild Avenue Greenwich:

- The site and surrounding land appears to have been used for residential purposes for at least sixty years and prior to that for farming. These uses are not generally associated with land contamination.
- The geology at the site consists of clay soils over shale bedrock. There is no

evidence of significant filling of the land although some localised 'cut and fill' appears to have been undertaken.

The assessment activities did not identify land uses that are considered likely to result in site contamination. In addition there is no evidence of significant filling of the land with material from unknown sources.

This site is considered suitable for the proposed hospital development or for residential. During development any material excavated, that is not needed to be retained on site, should be classified in accordance with the current waste guidelines prior to off site disposal.

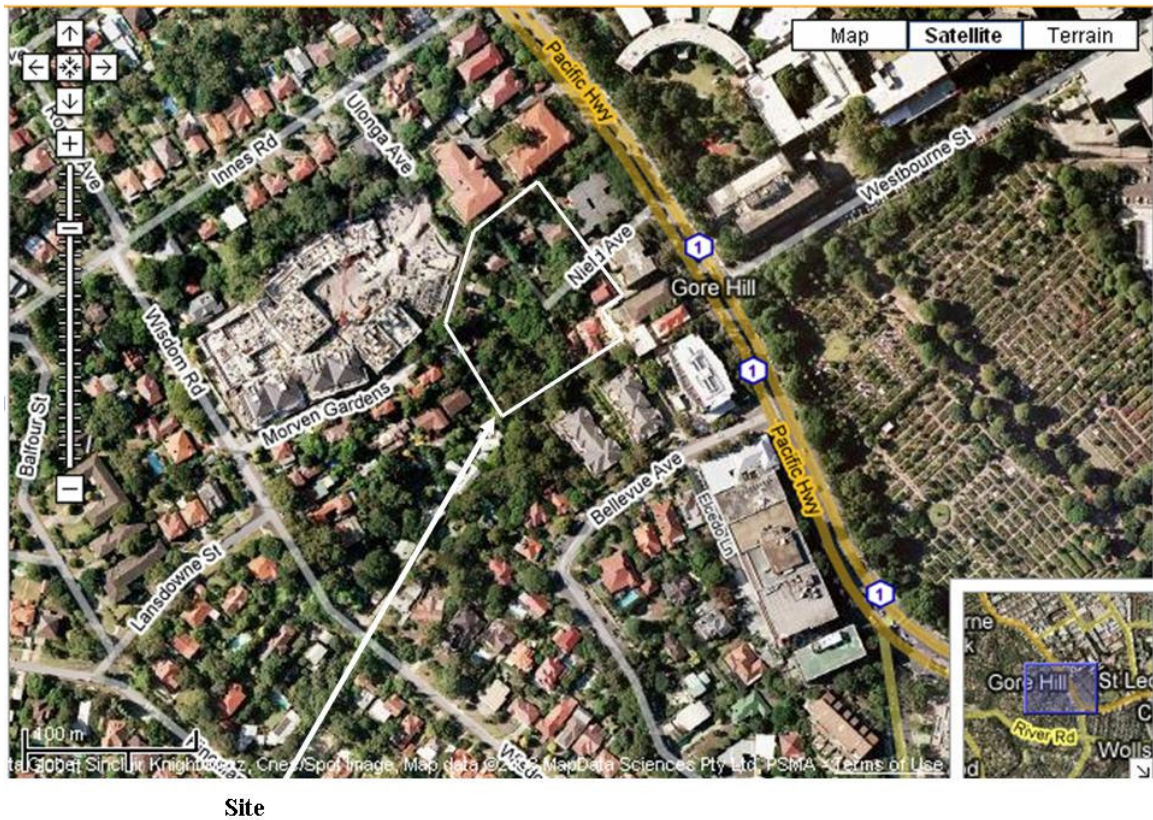


Figure 3 – Aerial Photograph



Figure 2 – Site Plan

Preliminary Environmental Site Assessment
1-8 Neill Avenue, Greenwich

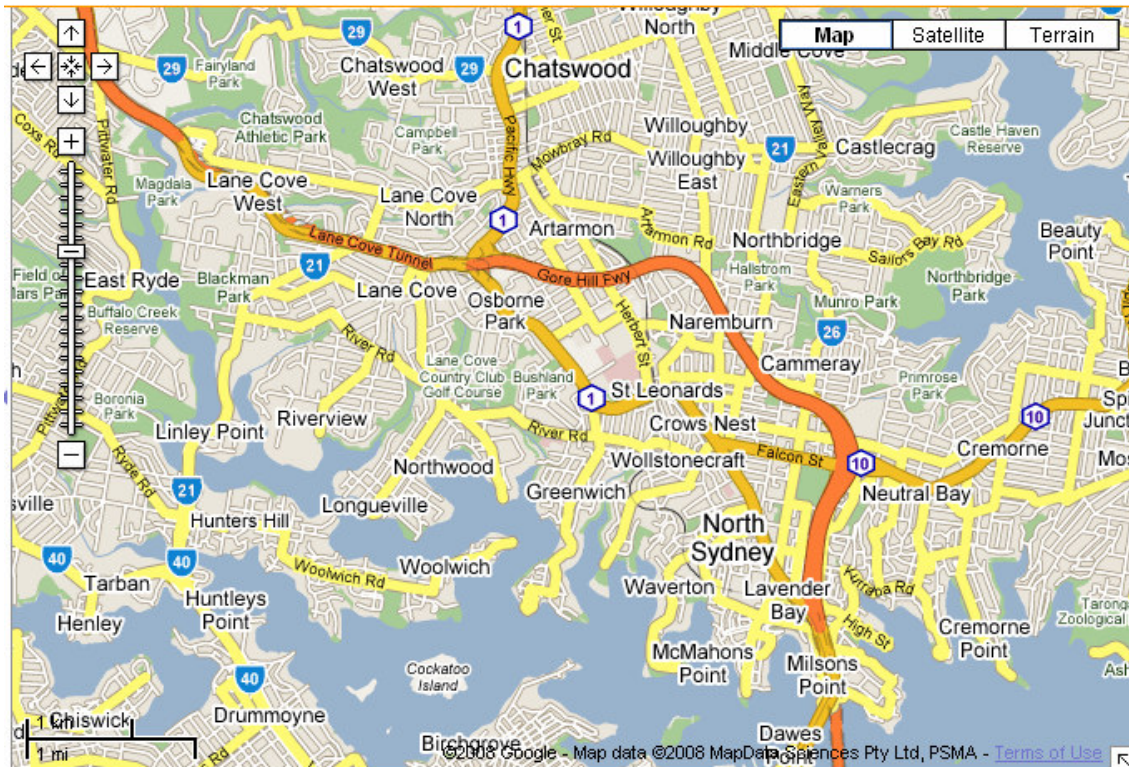


Figure 1 – Location Plan

Preliminary Environmental Site Assessment
1-8 Neild Avenue, Greenwich

