

22 September 2021

Anthony Wynen
Strategic Planner
City of Canada Bay
Via email: Anthony.Wynen@canadabay.nsw.gov.au

Acid Sulfate Soil Assessment – Victoria Road, Drummoyne, NSW

Dear Anthony,

1. Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) have been engaged by City of Canada Bay Council (the client) to provide an assessment of potential Acid Sulfate Soil (ASS) conditions for a number of premises located along Victoria Road, Drummoyne, as shown on **Figure 1, Attachment 2** (the site).

Council has prepared a planning proposal (LEP Miscellaneous Amendments) which proposes a number of amendments to the Canada Bay Local Environment Plan (LEP) 2013. One of the amendments relates to an increase in building height across the site, from 15m (4 storey) to 20m (6 storey) and facilitate the construction of 158 dwellings. Council is not changing the permissible use of the land, but the amendment will allow for the intensification of the use.

The Department of Planning, Industry and Environment has issued a Gateway determination with condition 1 detailing a requirement to address “Ministerial Direction 4.1 - Acid Sulfate Soils” prior to public exhibition. The client has therefore requested a review of the ASS conditions and risk profile at the site to satisfy this requirement.

2. Objective

The objective of this assessment is to provide a desktop review of acid sulfate soil conditions at the site to address the Department of Planning, Industry and Environments requirements prior to Council’s submission of planning proposal amendments.

3. Scope of Works

The scope of work undertaken by JBS&G in order to achieve the objectives of the assessment included:

- Review of ASS desktop information including ASS Risk Map, Canada Bay LEP 2013 and previous environmental investigations relating to the site; and
- Preparation of a letter report to document the acid sulfate soil assessment results.

The scope of work was completed in general accordance with relevant guidelines made or approved by the NSW Environment Protection Authority (EPA), the Acid Sulfate Soil Management Advisory Committee (ASSMAC), and relevant Australian Standards.

4. Site Description

The site description was prepared based on review of online aerial images and street view (Nearmap 2021¹, Google Maps 2021²). The site area boundaries are shown on **Figure 1, Attachment 2**.

The site comprises a number of mixed-use commercial / residential premises running along Victoria Road between Lyons Road (approximately 50 m to the north) and Church Street. The site is separated into two portions, north and south, with Edwin Street separating the portions.

Northern Portion

The northern portion of the site comprises a number of single and multi storey mixed commercial and residential buildings, and one vacant lot. The commercial premises are located on the ground floor and includes a real estate agency, pet grooming, a number of bakeries and cafes, a hairdresser, a computer repair shop, a rug shop, an X-ray facility, a medical centre and a chemist.

A number of these premises have one or two stories of residential apartments above with rear street level parking accessible from Formosa Street.

Southern Portion

The southern portion of the site also comprised a number of single and multi storey buildings with a mix of both commercial and residential premises. The commercial premises include a number of home improvement stores (kitchen, flooring, interior decorating), cosmetic specialists, a bank, a large food grocer and café (Harris Farm Market), and a tax agent.

These premises have between one and three storeys of residential accommodation above with a mix of rear carparking accessible from Formosa Street and underground carparking facilities.

5. Environmental Desktop Information

5.1 Topography

Review of topographic information obtained from Google Earth (2021³) indicated that the site has an elevation range of approximately 20 to 30 m Australian Height Datum (AHD). The centre of the site (Edwin St) is the lowest point of the site within a slight valley, sloping west to east, with the north and south ends of the site both slopping towards the centre.

5.2 Geology and Soils

Reference to the 1:100 000 Geological Series Sydney Geological Series Sheet 9130 (DMR 1983), indicated that the site is underlain by Hawkesbury Sandstone consisting of medium to course grained quartz sandstone with minor shale lenses.

Reference to the online ESPADE tool hosted by the NSW Office of Environment and Heritage (OEH 2017⁴) indicated that the site is part of the Gynea Soil Landscape Group. Typical soils consist of shallow to moderately deep yellow earth and earth sand with localised gleyed podzolic soil and yellow podzolic soils on shale lenses.

¹Nearmap.com/maps, accessed on 21 September 2021 (Nearmap 2021)

²Google.com/maps, accessed 21 September 2021 (Google Maps 2021)

³Google Earth Pro 2021, accessed on 6 May 2021 (Google Earth 2021)

⁴ESPADE, NSW Office of Environment and Heritage, <http://www.environment.nsw.gov.au/eSpade2Webapp>, accessed 21 September 2021 (OEH 2017)

5.3 Acid Sulfate Soil Potential

In NSW, development of land subject to ASS occurrence is managed at a planning level in accordance with the Acid Sulfate Soil Manual prepared by the Acid Sulfate Soil Management Advisory Committee (ASSMAC 1998). LEPs provide a regulatory regime for the sustainable management of ASS in the coastal zone. The ASS Manual provides guidance on the assessment of ASS conditions and appropriate management strategies for development of ASS identified land.

Review of the *Prospect / Parramatta River 1:25 000 Acid Sulfate Soil Risk Map*⁵ indicates a low probability of ASS being present at the site, in an area mapped as having no known occurrences of ASS material. It is also noted that environmental risk land management activities are not likely to be affected by ASS material.

The Canada Bay LEP 2013 identifies the site as Class 5 on the Acid Sulfate Soils map, sheet 6. For such classes of ASS, an ASS investigation and/or management plan (ASSMP) is required prior to issue of a development consent to carry out works within 500 metres of adjacent Class 1, 2, 3 or 4 land where works are below 5 m AHD and by which the water table is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land. It is noted the site is elevated over Hawkesbury Sandstone at between 20 and 30 m AHD and at least 300 m from the nearest area having an elevation of 5 m AHD. Groundwater below the site is anticipated to be at depth in sandstone bedrock.

6. Historical Environmental Reports

The following historical environmental reports completed on properties within the current site area were provided by the client:

- *Acid Sulphate Soil Assessment*, 121-133 Victoria Road, Drummoyne, NSW, Decon Australia Pty Ltd, Aargus Australia, August 2021 (Aargus, 2021a);
- *Geotechnical Investigation Report*, 121-133 Victoria Road, Drummoyne, NSW, Decon Australia Pty Ltd, Aargus Australia, August 2021 (Aargus, 2021b); and
- *Acid Sulphate Soil*, Proposed Commercial Building, 135 Victoria Road, Drummoyne, Pierre Jacob Family Trust and Joseph Family Trust, GeoEnviro Consultancy Pty Ltd, March 2008, GeoEnviro 2008).

Based on review of the above historical reports, the soil profile generally comprised silty clay fill material overlying natural clayey sand with weathered sandstone bedrock at depths of approximately 2-4 m below ground surface (bgs). No unusual colouring, odours or shells were noted during the intrusive investigations, suggesting the absence of ASS.

Field testing completed by Aargus on natural soils also concluded the absence of ASS or potential ASS.

Additionally, no shallow groundwater was noted within any of the investigation reports.

7. Discussion

Overall, the site is identified on all maps as being in an area of no known ASS occurrence by NSW Government. The site elevation and observations of sandstone bedrock beneath the site are not consistent with ASS conditions. Additionally, no indicators of ASS were observed or reported in any of the previous environmental assessment reports reviewed for the site.

⁵ *Prospect/Parramatta River 9130 N3 – Acid Sulfate Soil Risk Map – Edition Two*, Department of Land and Water Conservation, 1997 (DLWC 1997).

8. Conclusion

The above provides an assessment of the potential for ASS across the site area and addresses the Department of Planning, Industry and Environment requirements. It is concluded, based on the results of the desktop review and review of previous environmental assessments, the site is situated in an area of no known occurrence of ASS and it is considered that no further assessment or management of ASS is required.

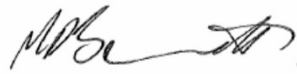
Should you require clarification, please contact the undersigned on 02 8245 0300 or by email klinz@jbsg.com.au.

Yours sincerely:



Katie Linz
Senior Associate
JBS&G Australia Pty Ltd

Reviewed/Approved by:



Matthew Bennett (CEnvP SC)
Senior Principal
JBS&G Australia Pty Ltd

Attachments:

1. Limitations
2. Figure

Attachment 1 – Limitations

This report has been prepared for use by the client who commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, including use by the Site Auditor acting as an agent of the client in this respect. No warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in-full including all attachments as originally provided to the client by JBS&G.

Limited sampling and laboratory analyses were undertaken as part of the investigations reviewed, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the stockpile or subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site or material investigated, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

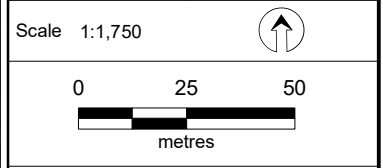
Attachment 2 – Figure



- Legend**
- Approximate Site Boundary
 - NSW Cadastre (DFS1, 2021)
 - Contours (2m) (NSW LPI)



Job No: 61791
 Client: City of Canada Bay Council
 Version: L01 Rev 0 Date 22/09/2021
 Drawn By: JA Checked By: KL



Coord. Sys. GDA 1994 MGA Zone 56

**Victoria Road,
 Drummoyne, NSW**

SITE LAYOUT

FIGURE 1

File Name: N:\Projects\City of Canada Bay Council\61791 Drummoyne ASS Assessment\GIS\Maps\L01\61791_01_SiteLayout.mxd
 Reference: Nearmap - www.nearmap.com.au (Capture Date: 06/08/2021) and © OpenStreetMap (and) contributors, CC-BY-SA