

29 March 2019

Catholic Education Diocese of Parramatta  
c/- Nicole Kirby  
Project Manager  
TSA Management  
via email: [nkirby@tsamanagement.com.au](mailto:nkirby@tsamanagement.com.au)

**‘Commercial in Confidence’**

**Contamination Assessment, Proposed Santa Sophia Catholic College, The Gables Town Centre, Box Hill North**

Dear Nicole,

**1. Introduction and Background**

**1.1 Overview**

This contamination assessment has been prepared by JBS&G Australia Pty Ltd (JBS&G) on behalf of the Catholic Education Diocese of Parramatta c/TSA Management Pty Ltd (the Applicant).

It accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application (SSD 18\_9772) for the new Santa Sophia Catholic College on the corner of Fontana Drive and the future road ‘B’, between Red Gables Road and Fontana Drive, in Box Hill North (the site).

The new school will cater for approximately 1,920 primary and secondary school students, inclusive of a 60 student Catholic Early Learning Centre. The school will have 130 full-time equivalent staff.

The proposal seeks consent for approximately 15,000sqm of floor space across a part five and part six storey building. The building will present as three main hubs connected by terraced courtyards and garden spaces.

The school will include:

- Catholic Early learning centre for 60 students;
- General Learning Spaces for years Kindergarten to 12;
- Community Hub – knowledge centre and cafe;
- Creative Hub – art and applied science;
- Performance Hub – multipurpose hall and music, dance and drama spaces;
- Professional Hub – administrative space;
- Research Hub – science and fitness;
- Associated site landscaping and open space including a fence and sporting facilities;
- Bus drop off from Fontana Drive;
- Pick-up and drop-off zone from future road ‘B’;
- Pedestrian access points from Red Gables Road north, Fontana Drive and future road ‘B’;

- Staff parking for 110 vehicles provided off site in an adjacent location;
- Short term parking for pick up and drop off for Catholic Early Learning Centre from Red Gables Road; and
- Digital and non-digital signage to the school.

The purpose of this contamination assessment is to provide an assessment of contamination to demonstrate the site is suitable for the proposed land use and the potential for hazardous materials in existing structures if present.

## 1.2 Response to SEARs

The contamination assessment is required by the Secretary's Environmental Assessment Requirements (SEARs) for SSD 18\_9772. This table identifies the relevant SEARs requirements and corresponding references within this report.

**Table 1: SEARs and Relevant Reference**

SEARs Item	Report Reference
Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55	Sections 5, 7.1 and 8
Undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works.	Sections 4, 7.2 and 8
Relevant Policies and Guidelines: <ul style="list-style-type: none"> <li>• Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP).</li> </ul>	Sections 1.3 and 2

It is noted the report in its entirety addresses the SEARs items, however the items are predominantly addressed by the report references tabled above.

## 1.3 Background

The Santa Sophia Catholic College development is understood to comprise a multi-storey school for Kindergarten to Year 12 students set in the Town Centre of The Gables, currently being developed by Celestino. JBS&G completed preliminary and detailed site investigations and prepared a Remedial Action Plan (RAP) prior to commencement of development works across The Gables. These documents determined The Gables could be remediated for the intended mixed land uses including residential and open space areas, roads, a Public School (not the current site) and the Town Centre.

It is noted the RAP for The Gables did not specifically consider development of a school within the Town Centre precinct. To address the SEARs item relating to contamination therefore, this report aims to assess contamination and demonstrate that the subject site is suitable for the proposed use in accordance with State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) and associated DUAP (1998) Planning Guidelines.

## 2. Scope of Work

JBS&G completed the following scope of work:

- Review relevant reports relating to investigation of potential contamination within The Gables as relating to the proposed SSCC site;
- Review relevant reports to assess potential for structures and the need or otherwise for hazardous materials survey for the SSCC site; and
- Prepare a letter of advice presenting the review findings and responding to each of the SEARs points above.

The work was complete consistent with relevant EPA made and endorsed guidelines and DUAP (1998) SEPP55 Planning Guidelines.

### 3. Site Details

The SSCC site is situated north of Red Gables Road within the Box Hill North Town Centre precinct within The Gables mixed use development by Celestino. The site has an area of approximately 10,000 square metres, or 1 hectare. The site is currently part of Lot 26 in Deposited Plan (DP) 255616, being 12 Red Gables Road, and may include a small portion of adjoining Lot 25 DP 255616 being 10 Red Gables Road. The site location and boundaries are provided on **Figures 1 and 2** attached.

### 4. Site History

The greenfield site has historically been used for low-intensity rural residential purposes and included grazing and small market gardens/hobby farming. Use of the land for small gardens/crops occurred for a limited time from the 1980s until the late 1990s to early 2000s.

The site is part of land that has already been subject to Preliminary Site Investigation (PSI, JBS 2013<sup>1</sup>), Detailed Site Investigation (DSI, JBS&G 2014<sup>2</sup>) and preparation of a RAP (JBS&G 2015<sup>3</sup>). These were prepared in support of rezoning and development applications for The Gables development.

Historical aerial photography (JBS 2013) shows there have been no structures within the SSCC site. Structures that existed on Lots 26 and 25 DP 255616 were well beyond the SSCC site boundaries, and these have since been demolished and cleared.

### 5. Site Condition and Surrounding Environment

A qualified environmental consultant from JBS&G inspected the site on 18 March 2019 to assess current site conditions and enable comparison with previously reported conditions during previous investigations.

The site boundary along Red Gables Road was secured by a chain-link fence and locked gate. The site was predominantly covered by grass with no evidence of structures or former structures. An unsealed vehicle path traverses the western portion of the site in an approximately north-south orientation, and grass was disturbed in the vicinity. Some sections of geofabric held up by steel 'star' pickets were observed within and adjacent the site, and there were some plastic irrigation hoses also observed (these relate to dewatering of dams elsewhere within The Gables).

A small circular area of bare ground and gravel adjacent a small depression approximately 2 m long by 0.5 m wide and 0.5 m below the surrounding ground level, was observed in the northeast corner of the site. The depression contained a small amount of general rubbish including steel fence pickets, steel mattress springs and plastic. No asbestos or chemical containers were observed, and there were no odours or staining noted in this area, or elsewhere within the site.



<sup>1</sup> Preliminary Site Investigation, Box Hill North, NSW, JBS Environmental (now JBS&G), July 2013 (JBS 2013)

<sup>2</sup> Detailed Site Investigation, Box Hill North, NSW, E.J Cooper and Son Pty Ltd, JBS&G, October 2014 (JBS&G 2014)

<sup>3</sup> Remediation Action Plan, Box Hill North, E.J Cooper and Son Pty Ltd, JBS&G, April 2015 (JBS&G 2015)

The surrounding area is similar in nature to the site, comprising vacant grassed land with no structures other than an abandoned greenhouse at 8 Red Gables Road further west. Red Gables Road is approximately 100 m south of the site, beyond which are active development areas within The Gables. The land across the site falls gently to the north and west.

## **6. Geology and Hydrogeology**

The site is underlain by Wianamatta Group shales (JBS&G 2014). Investigations have indicated a thin layer of silty clayey topsoil over residual clay and weathered shale. Geotechnical investigations at the SSCC site (DP 2019<sup>4</sup>) confirms this profile, with up to 150 mm topsoil over stiff to hard silty clay to depths of between 0.8 m and 2.8 m over weather shale, then laminate then sandstone.

Groundwater has been reported across the Gables at between 2.8 m and 7.4 m depth (JBS&G 2014). No groundwater was reported during drilling of boreholes completed by DP (2019) to depths of between 5 m and 8 m below ground at the site. Groundwater was inferred to be present within shale and to fluctuate dependent on rainfall.

## **7. Previous Investigation**

### **7.1 Contamination Investigations**

As noted the site has been subject to a PSI (JBS 2013) and DSI (JBS&G 2014) during investigations across the broader Gables development area for Celestino. These reports identified and investigated potential contamination within areas of potential environmental concern (AECs) across the Gables.

The PSI (JBS 2013) did not identify any AECs within the SSCC site, which appeared similar to the current condition. Minor issues within Lot 26 relating to scrap metal and ground disturbance were identified at a dam further north of the SSCC site. Identified AECs within the adjacent Lot 25 were further west around a former residence and greenhouse, well away from the current site extent.

The DSI (JBS&G 2014) involved a comprehensive investigation of potential soil and groundwater contamination across the Gables under a sampling and analysis plan providing for both systematic and targeted assessment of identified AECs and systematic assessment across the development area to provide coverage even where no AECs existed. No soil impacts above adopted NEPC (2013<sup>5</sup>) health or ecological criteria were reported within Lot 26 and isolated zinc above ecological criteria in Lot 25 were outside the SSCC site. No groundwater impacts were identified.

The DSI concluded there was no evidence of gross or widespread contamination with only localised impacts which could be readily managed to enable all proposed land uses, and preparation of a RAP was recommended to address the identified issues. No impacts/issues were noted specifically in the SSCC site area.

The RAP considered remediation options and presented preferred remediation approaches and validation protocols for impacts identified in the DSI, including collection of additional data where required prior to remediation. A range of preferred approaches were presented for various impacts including capping and containment where permissible or excavation and off-site disposal where on-site containment or beneficial reuse was not appropriate. Capping and containment was subsequently deemed inappropriate and excluded. The RAP presents validation criteria for mixed

<sup>4</sup> Report on Geotechnical Investigation, Proposed Santa Sophia Catholic College, Precinct E.5 - Red Gables Road, Box Hill, Douglas Partners, February 2019 (DP 2019).

<sup>5</sup> National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1) (NEPM), National Environment Protection Council (NEPC 2013)

land uses within the Gables, although JBS&G notes validation to date has adopted the conservative low-density residential criteria.

No areas of concern were specifically identified in the RAP for data gap assessment or remediation within the current SSCC site. Additional assessment was undertaken on Lot 26 and adjacent Lot 25 however these focussed on areas of identified concern beyond the SSCC site. The results of the data gap assessments for Lots 26 and 25 indicated remediation was not required in Lot 26 while remediation was required in Lot 25 to address identified impacts relating to stockpiles and structures beyond the SSCC site.

Celestino has been completing remediation where required for development/earthworks stages across the Gables development precincts, and JBS&G has been completing validation of remediation and unexpected finds to confirm the land use suitability as required by consent conditions for each stage. This process will continue for the Town Centre precinct which includes the SSCC site. This will include removal of minor surface waste where observed.

## **7.2 Hazardous Materials Survey**

A Hazardous Material Survey (HMS) was also conducted across the Gables (JBS&G 2017<sup>6</sup>). No structures were present within the SSCC site. No structures have been observed on the site from review of historical aerial photography. Inspection of the site confirms there is no evidence of current or former structures and no hazardous materials including asbestos were identified on site surfaces on the SSCC site.

## **8. Conclusions**

Based on the results and limitations of previous investigations and the current assessment capturing the subject site, JBS&G concludes the following:

- Assessment of soil and groundwater contamination on land including the site demonstrates that the site is suitable for the proposed land use, consistent with SEPP 55, and a site-specific RAP is not required; and
- No structures have existed or are present on the site, as such a hazardous material survey is not required for the site.

Should you require clarification, please contact the undersigned on 02 8245 0300 or by email [mbennett@jbsg.com.au](mailto:mbennett@jbsg.com.au).

Yours sincerely:



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

Attachments:

- 1) Limitations
- 2) Figures

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<sup>6</sup> Hazardous Materials Survey – Various Locations, Box Hill. 24 August 2017, JBS&G Australia Pty Ltd (JBS&G 2017)

## **Attachment 1 – Limitations**

This report has been prepared for use by the client who has 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 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.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

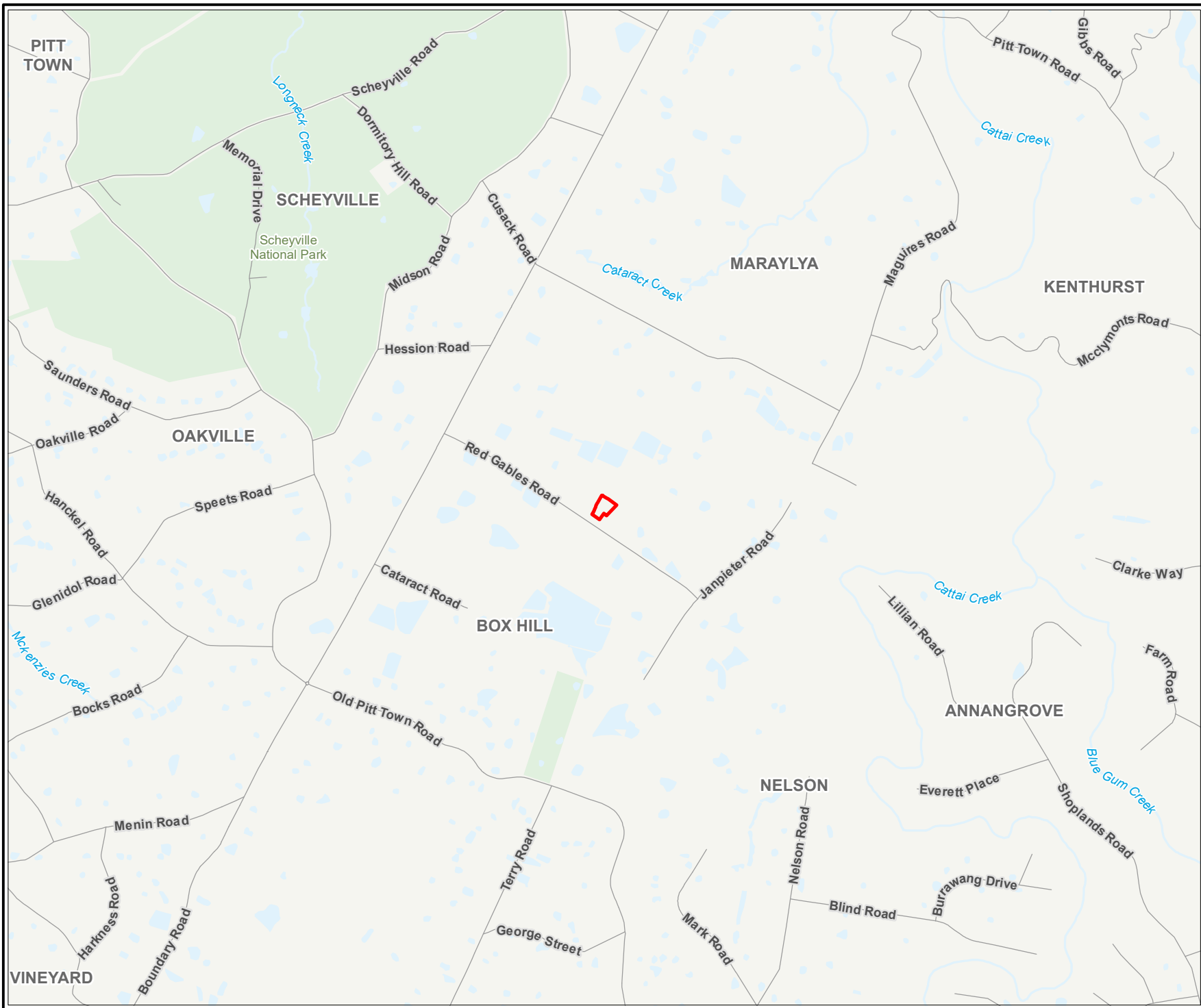
Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken described herein. Ground conditions between sampling locations and media may vary and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information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

Changes to the 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 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 – Figures**





**Legend:**

- Site Boundary
- Parks and reserves
- Waterbody area
- Waterway
- Local Road

Job No: 56099  
 Client: Catholic Education Office  
 Version: L01 Rev 0    Date 29/03/2019  
 Drawn By: FH    Checked By: MD  
 Scale 1:30,000  
  
  
 Coord. Sys. GDA 1994 MGA Zone 56  
**Santa Sophia Catholic College  
 Red Gables Road  
 Box Hill NSW**  
**SITE LOCATION**

**FIGURE 1**



**Legend:**

 Site Boundary



Job No: 56099

Client: Catholic Education Office

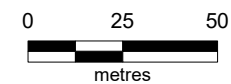
Version: L01 Rev 0

Date 29/03/2019

Drawn By: FH

Checked By: MD

Scale 1:2,000



Coord. Sys. GDA 1994 MGA Zone 56

**Santa Sophia Catholic College**  
**Red Gables Road**  
**Box Hill NSW**

**SITE LAYOUT**

**FIGURE 2**