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Sikh Grammar School – 151 and 161 Tallawong Road, Rouse Hill

Odour Advice Note

Addressee(s): The Sikh Grammar School Australia

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REVIEW OF POTENTIAL ODOUR SOURCES	Final	Northstar Air Quality	GCG	MD
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Report Status

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Final Authority

This report must be regarded as draft until the above study components have been each marked as final, and the document has been signed and dated below.



Martin Doyle

9th April 2019

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1. INTRODUCTION

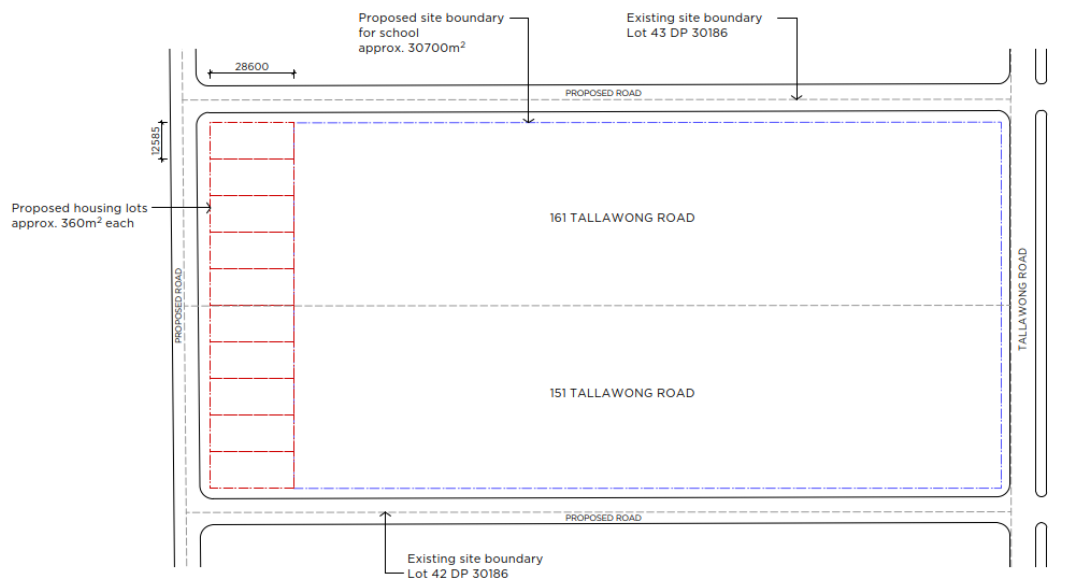
The Sikh Grammar School Australia is in the process of submitting two separate Development Applications (DA) to the NSW Department of Planning & Environment (DP&E) and Blacktown City Council (BCC) relating to land at 151 and 161 Tallawong Road, Rouse Hill, NSW.

A State Significant Development Application (SSDA) is to be submitted to NSW DP&E and relates to a proposed school, student and staff boarding facilities, early learning centre and place of worship (hereafter 'the School project').

A separate DA is to be submitted to BCC for the subdivision of the existing two Lots to create 11 new Lots; 10 for new houses and one for the School project (hereafter 'the Proposal').

The Proposed subdivision of 151 and 161 Tallawong Road is presented in **Figure 1**. The Proposal site is largely cleared.

Figure 1 Proposed sub-division



PMDL ARCHITECTURE
INTERIORS
MASTERPLANNING

DATE	DATE	REVISION
2018-07-01	2018-07-01	1
2018-07-01	2018-07-01	2
2018-07-01	2018-07-01	3
2018-07-01	2018-07-01	4
2018-07-01	2018-07-01	5
2018-07-01	2018-07-01	6
2018-07-01	2018-07-01	7
2018-07-01	2018-07-01	8
2018-07-01	2018-07-01	9
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2018-07-01	2018-07-01	11
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2018-07-01	2018-07-01	97
2018-07-01	2018-07-01	98
2018-07-01	2018-07-01	99
2018-07-01	2018-07-01	100

To support the DA, BCC has requested:

“Level 3 odour impact assessment. Recommendations must be provided to mitigate the impact of any potential offensive odours that may impact the development and future residents. The report is to be completed in accordance with the requirements of the Environment Protection Authority’s document Assessment and Management of Odour from Statutory Sources in NSW and Technical Framework November 2006. The report is to be written by a consultant with suitable technical qualifications and experience.”

Northstar Air Quality Pty Ltd (Northstar) has been commissioned by The Sikh Grammar School Australia to respond to the BCC requirement for an odour assessment.

Given the operational status of a number of poultry farm operations in the area, and the status of approved residential development in the area, a Level 3 odour assessment is not considered to be required in this instance. This report outlines the rationale for that conclusion and provides supporting evidence.

2. SUMMARY OF POTENTIAL ODOUR SOURCES

Review of Google Earth imagery from 2004 (the clearest imagery available through Google Earth for the area) indicates that a number of poultry farm operations and a meat rendering plant are located within a 2-kilometre (km) radius of the Proposal site. Clearly, should these sites be operational then they have the potential to give rise to odour impacts at the Proposal site. Many historic studies of odour performed in the area have indicated that in particular, poultry farming operations at 95 Tallawong Road (approximately 500 m to the south of the Proposal) may have the potential to significantly impact upon the odour environment experienced at the Proposal site (e.g. TAS, 2017).

Given the status of the area as the North West Growth Area, and knowledge of a number of residential developments being approved in the area, Northstar has performed a detailed review of the current status of operations in the area surrounding the Proposal site which may have the potential to impact upon odour experienced at the Proposal site. A detailed review of each of these operations within a 2 km radius has been performed which has included a site visit performed by Dr Martin Doyle on Friday 29 March 2019, a review of on-line imagery and other available sources.

Presented in **Table 1** is a summary of the operations with potential to result in emissions of odour, identified through an initial review of Google Earth imagery from the year 2004. Following the site visit and through review of NSW Government SIX maps (maps.six.nsw.gov.au) which provides more up to date imagery than Google Earth, the status of each of the originally identified operations has been updated, with the potential for each operation to result in emissions of odour also presented in **Table 1**. Photographs and maps supporting the removal of certain sources from further consideration as sources of odour are presented in **Table 2** and **Table 3**.

Table 1 Status of potential odour sources surrounding Proposal site

Address	Distance from Proposal site (m)	Current status	Potential odour source
177 Cudgegong Road, Rouse Hill	440	Possibly operational layer farm Very small operation (if operating) with limited access, possibly layer farm rather than broiler farm	Yes
95 Tallawong Road, Rouse Hill	480	Previous broiler farm Major construction works occurring on site See Table 2 (previously five poultry sheds)	No
20 Clarke Street, Riverstone	830	Operational broiler farm Six naturally ventilated poultry sheds	Yes
18 Clarke Street, Riverstone	930	Previous broiler farm Site cleared, covered in scrubby vegetation See Table 3	No
16 Clarke Street, Riverstone	980	Previous broiler farm Site cleared, covered in scrubby vegetation See Table 3	No
1106 Windsor Road, Riverstone AJ Bush & Son Meat Rendering Plant	1 100 (from nearest treatment pond)	Operational meat rendering plant	Yes
100 Worcester Road, Rouse Hill	1 200	Operational broiler farm Four naturally ventilated poultry sheds	Yes

The locations of the sites outlined in **Table 1** is presented as **Figure 2**.

Figure 2 Proposal site and surrounding odour sources (operational and non-operational)

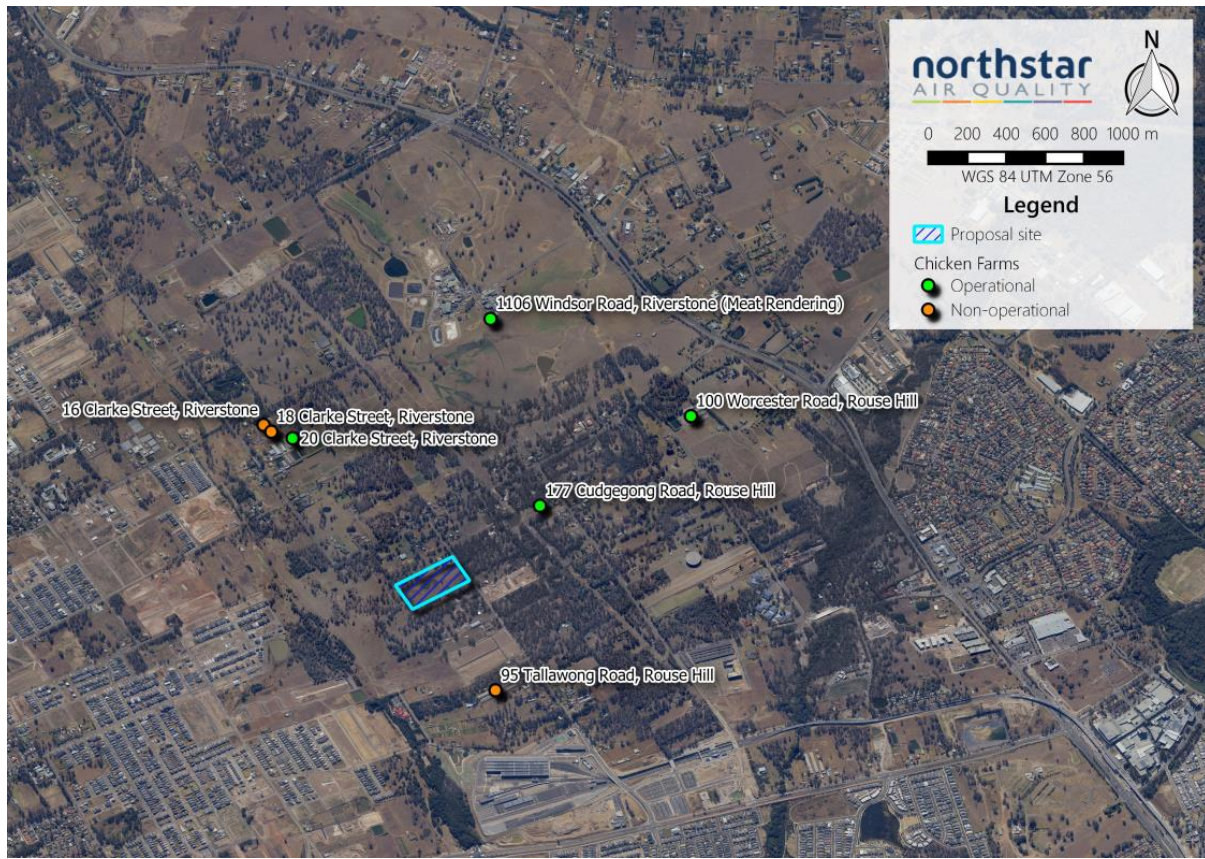


Table 2 95 Tallawong Road, Rouse Hill

Photo 1 (29 March 2019)

(looking southwest)

95 Tallawong Road

480 m to the south of the Proposal site

Major construction works being performed on site including the removal of poultry sheds (see Map 1).



Map 1 (maps.six.nsw.gov.au)

95 Tallawong Road

480 m to the south of the Proposal site

Note dismantling of poultry sheds.



Table 3 16 & 18 Clarke Street, Riverstone

Photo 2 (29 March 2019)

(looking southeast)

16 & 18 Clarke Street, Riverstone, approximately 950 m to the north of the Proposal site. Cleared of poultry sheds. Land is overgrown and surrounding by shade cloth barrier.



Photo 3 (29 March 2019)

(looking east)

16 & 18 Clarke Street, Riverstone, approximately 950 m to the north of the Proposal site. Cleared of poultry sheds. Land is overgrown and surrounding by shade cloth barrier with "The Bathla Group – Construction Site DO NOT ENTER" signs.



Map 2 (maps.six.nsw.gov.au)

16 Clarke Street, Riverstone, 980 m to the north of the Proposal site. Note dismantling of poultry sheds.



Map 3 (maps.six.nsw.gov.au)

18 Clarke Street, Riverstone. 930 m to the north of the Proposal site. Note dismantling of poultry sheds.



3. REVIEW OF POTENTIAL ODOUR SOURCES

Through the review presented above, three potential sources of odour have been confirmed to be non-operational. The remaining four potential odour sources include a layer farm, two broiler farms and a meat rendering plant.

To assess the potential odour impact of each of the four odour sources, a review of previously submitted odour assessments in the area has been performed. The review has considered the following:

- Odour Assessment for Precinct Planning, Area 20 Precinct, North West Growth Centre, Blacktown, NSW (PAEHolmes, 2009)
- Odour Assessment 14 & 28 Clarke Street, Riverstone, Elite International Investments (TAS, 2017)
- West Schofields Precinct Level 2/3 Odour Assessment (Pacific Environment, 2018)
- Marsden Park North Precinct, Odour Assessment (SLR, 2018)

3.1 177 Cudgegong Road, Rouse Hill

A small operation is noted at 177 Cudgegong Road, Rouse Hill (often referred to as 181 Cudgegong Road in some assessments (PAEHolmes, 2009) (Pacific Environment, 2018)). The site visit performed on 29 March 2019 indicated that no significant roads were present to allow truck access to the small shed in the middle of the property, indicating that the operation is likely to be a layer (egg) farm rather than an intensive meat producing activity. The operation could possibly be ceased, and some previous assessments (Pacific Environment, 2018) have considered this farm to be non-operational. Insufficient evidence to confirm operational or non-operational status was able to be collected on the day of the site visit. No poultry related odours were noted in the area surrounding the site.

A Level 1 odour assessment (typically highly conservative in nature) performed by PAEHolmes (PAEHolmes, 2009) calculated that the separation distance required between this operation and residential development was 414 m, and 497 m with a 20% margin of safety. The Proposal site boundary is located 440 m from the potential operation at 177 Cudgegong Road, while the proposed residential subdivision located at a distance of approximately 700 m.

Furthermore, residential subdivisions at 136 and 144 Tallawong Road have been approved by Council and are currently being constructed. See **Figure 3** and **Figure 4** which depicts construction works as seen on 29 March 2019 at 144 Tallawong Road. The closest part of these approved subdivisions is approximately 300 m from the possible layer farm at 177 Cudgegong Road.

The site may not be operational, residential subdivisions have been approved at distances 400 m closer to the potential odour source at 177 Cudgegong Road, and the subdivision at the Proposal site is located well outside the calculated buffer distance (including a 20% safety margin). On the basis of this, it is considered that the approval for residential subdivision at the Proposal site should not be declined on the basis of odour emitted from this operation.

3.2 20 Clarke Street, Riverstone

A naturally ventilated poultry farm with six sheds is operated at 20 Clarke Street, Rouse Hill, which is approximately 830 m to the north of the Proposal site.

The site visit on 29 March 2019 confirmed that this site was operational and is therefore a potential source of odour.

Several new residential developments are located in the area surrounding 20 Clarke Street, including the closest being land approximately 300 m to the east, between Schembri Street and Annaluke Street where 34 residences have recently been constructed.

A number of DA's are currently under assessment by BCC for 14 Clarke Street and 16 Clarke Street, adjacent to the poultry farm operation at 20 Clarke Street. From review of the BCC online planning portal, DA-17-01082 (DA associated with multi-dwelling housing at 16 Clarke Street) has been appealed, and DA-18-1078 (DA associated with a three-level commercial/residential development at 14 Clarke Street) has been lodged.

A construction certificate associated with subdivision works (road and drainage) has been issued¹ for 16 Clarke Street (CC-19-00188), which indicates that residential development may have been approved at this location which is approximately 100 m from the poultry farm operations at 20 Clarke Street.

The above indicates that BCC have approved some level of development close to the poultry farm operation at 20 Clarke Street, Riverstone (through granting of subdivision works), although the status of the appealed decision associated with 16 Clarke Street is not publicly available.

The Proposal site is located over twice the distance from the 20 Clarke Street poultry farm than 16 Clarke Street and therefore it is likely that some detailed modelling (not publicly available) would have indicated that subdivision can proceed.

Based on the above, and the residential developments at 300 m from the poultry farm at Schembri Street, it is likely that BCC have been satisfied that odour emissions from this poultry farm would not impact upon those developments or be managed so as to not impact upon those developments. Therefore, it is concluded that odour from poultry farm operations at 20 Clarke Street would not impact upon the Proposal site.

1

<https://eservices.blacktown.nsw.gov.au/T1PRProd/WebApps/eProperty/P1/eTrack/eTrackApplicationDetails.aspx?r=BCC.P1.WEBGUEST&f=%24P1.ETR.APPDET.VIW&ApplicationId=CC-19-00188>

3.3 100 Worcester Road, Rouse Hill

A naturally ventilated poultry farm with four sheds is operated at 100 Worcester Road, Rouse Hill, which is approximately 1.2 km to the northeast of the Proposal site. A Level 1 odour assessment (typically highly conservative in nature) performed by PAEHolmes (PAEHolmes, 2009) calculated that the separation distance required between this operation and residential development was 945 m, and 1.1 km with a 20% margin of safety, all greater than the actual 1.2 km distance to the Proposal site.

Furthermore, residential subdivisions at 136 and 144 Tallawong Road have been approved by Council and are currently being constructed. See **Figure 3** and **Figure 4** which depicts construction works as seen on 29 March 2019 at 144 Tallawong Road. The closest part of these approved subdivisions is 1 km from the poultry farm at 100 Worcester Road. The Proposal site boundary is a further 200 m from these approved residences, and the proposed residential subdivision at the Proposal site is 450 m from this location.

Given that BCC has approved these residential developments which are closer to the Proposal site, it is therefore likely that BCC have been satisfied that odour emissions from this poultry farm would not impact upon those developments, and therefore would not impact upon the Proposal site.

Figure 3 Construction works at 144 Tallawong Road (1)



Figure 4 Construction works at 144 Tallawong Road (2)



3.4 1106 Windsor Road, Riverstone

AJ Bush and Son operates a meat rendering plant at 1106 Windsor Road, Riverstone. EPA Victoria publication number 1518, *"Recommended Separation Distances for Industrial Residual Air Emissions"* (EPA Victoria, 2013) and South Australia EPA publication *"Evaluation distances for effective air quality and noise management"* (SA EPA, 2016) identify a minimum buffer distance from operations of this type to nearest residential areas of 1 km.

The distance from the Proposal site to the closest element of the meat rendering plant (being a treatment pond) is 1.1 km and is therefore outside of this recommended 'buffer' zone. These quoted separation distances are conservative in nature and therefore the impacts of odour resulting from the ongoing operation of the meat rendering plant are not likely to impact upon the Proposal site.

Further support for this conclusion is provided in (SLR, 2018) *"The rendering plant is located in close proximity to a number of schools and SLR is not aware of any odour complaints made by these schools regarding odour from the plant."*

4. CONCLUSION

A review of potential sources of odour surrounding a proposed subdivision of land at 151 and 161 Tallawong Road, Rouse Hill NSW, has been performed by Northstar Air Quality Pty Ltd on behalf of The Sikh Grammar School Australia.

The review has included a desktop review of aerial imagery, previous odour assessment reports, current planning applications/approvals in the area, and a site visit conducted on 29 March 2019.

The review has concluded that four operational sources of odour are present within a 2 km radius of the Proposal site. A number of sites visible on aerial imagery (Google Earth) are confirmed to be no longer operational with farming infrastructure removed.

A detailed review of each of these operations, and the status of land surrounding those operations indicates that either:

- 1) the Proposal site (including the residential subdivision) is located outside of a buffer zone which has been conservatively provided (meat rendering plant) or calculated (177 Cudgegong Road and 100 Worcester Road) to prevent encroachment of residential development around odour sources; or,
- 2) development has already been approved and in some instances constructed, at distances closer to odour sources than that at which the Proposal site is located (20 Clarke Street). This indicates that BCC has been previously satisfied that odour impacts from this source would not affect residential development at distances greater than 300 m (maximum, not including potential development at the adjacent addresses).

The odour environment surrounding the Proposal site is in a state of flux, given the development status of the area. This results in a reduction in the number of odour sources in the area, and this review has respectfully concluded that the DA for the Proposal site should not be required to be supported by a Level 3 odour assessment report.

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5. REFERENCES

EPA Victoria. (2013). *Recommended separation distances for industrial residual air emissions. Publication number 1518.*

Pacific Environment. (2018). *West Schofields Precinct Level 2/3 Odour Assessment .*

PAEHolmes. (2009). *Odour Assessment for Precinct Planning, Area 20 Precinct, North West Growth Centre, Blacktown, NSW. Prepared for NSW Department of Planning.*

SA EPA. (2016). *Evaluation distances for effective air quality and noise management.*

SLR. (2018). *Marsden Park North Precinct, Odour Assessment.*

TAS. (2017). *Odour Assessment 14 & 28 Clarke Street, Riverstone.*