

## **TECHNICAL NOTE REGARDING RESIDENTIAL DEVELOPMENT AT LAND AT MERTON STREET, BANBURY (16/00472/OUT) PREPARED IN RESPONSE TO THAMES WATER RESPONSE RE: S GRUNDON SERVICES, MERTON STREET, BANBURY, OXFORDSHIRE, OX16 4RN**

ACCON UK Limited (ACCON) were previously commissioned by Grundon Waste Management Ltd and CEMEX UK Properties Ltd to carry out an odour assessment to support a planning application for a proposed residential development on land at Merton Street, Banbury (ACCON UK “Residential Development at Land at Merton Street, Banbury - Odour Assessment A3810/O/001– dated 18.02.2020). The proposed development will consist of approximately 200 residential dwellings.

The proposed development location will have Higham Road as its main access to the north-west, along with Merton Street, Bridge Street and Middleton Road to the north. The proposed development is located within Cherwell District Council (CDC).

The methodology of the assessment was agreed with Veronique Bensadou, of Grundon Waste Management Ltd. Information was requested from Thames Water (17<sup>th</sup> November 2019 - 4<sup>th</sup> December 2019); however, Thames Water were not willing to cooperate with providing any information to ACCON, indicating that they required their own air quality consultants to carry out odour measurements and modelling of the Banbury Sewage Treatment Works (STW).

Thames Water would not respond to our request for information; therefore the odour emission rates were derived from the UK Water Industry Research (UKWIR) (2001), “Odour Control in Sewage Treatment – Technical Reference Document 01/WW13/3” published emission rates. The UKWIR emission rates are recognised as an appropriate method for carrying out odour modelling and are routinely used where access to sewage assets is not available

A qualitative odour assessment was carried out on the 27<sup>th</sup> November 2019. The two people carrying out the qualitative sniff testing on the site have previously had their detection threshold tested by Spectrum Environmental Limited and Silsoe Odours Limited. Their detection threshold was determined at 36.5ppb and 29.9ppb for n-butanol (EN13725), which means that their assessments can be relied upon to reflect the general population in respect to odour. Sniff testing is an acceptable method of determining the likelihood of odour resulting in a nuisance or a loss of amenity.

Odour was slight at Receptors 2 and 4, although odour could not be definitively linked to the STW. At all other locations, there were no instances of odour detection or identification. (Sniff test locations are identified in **Figure 1**).

As such, it is highly unlikely that odour from the STW will reach the proposed development site, as the boundary is approximately 170m north-east, and the closest odour source is approximately 250m north-east. Even if the the wind direction is from the north-east. No odour was detected downwind from the odour source.

ACCON’s Odour Assessment report identified that the highest annual 98<sup>th</sup> percentile odour concentration at each sensitive receptor location during the worst case of the five years of modelled meteorological data. There are no exceedances of the c<sub>98</sub>, 1-hour 30 $\mu$ E/m<sup>3</sup> benchmark at any residential receptor, as identified in **Figure 2**.

The STW is located to the north-east of the proposed development site and therefore odours will not regularly reach the proposed development as the prevailing wind is from the south-west. In addition, the presence of a significant buffer (170m, boundary to boundary) between the proposed development site boundary and the STW boundary ensures that there is significant dilution between source and receptor even under adverse meteorological conditions.

Therefore, Thames Water's request for a planning condition at Para 3 of their response dated 9<sup>th</sup> July 2020, should not be applicable, as odour modelling has already been undertaken, and a suitable report has been submitted to the Local Planning Authority.

**Figure 1: Sniff Testing Locations - 27th November 2019**

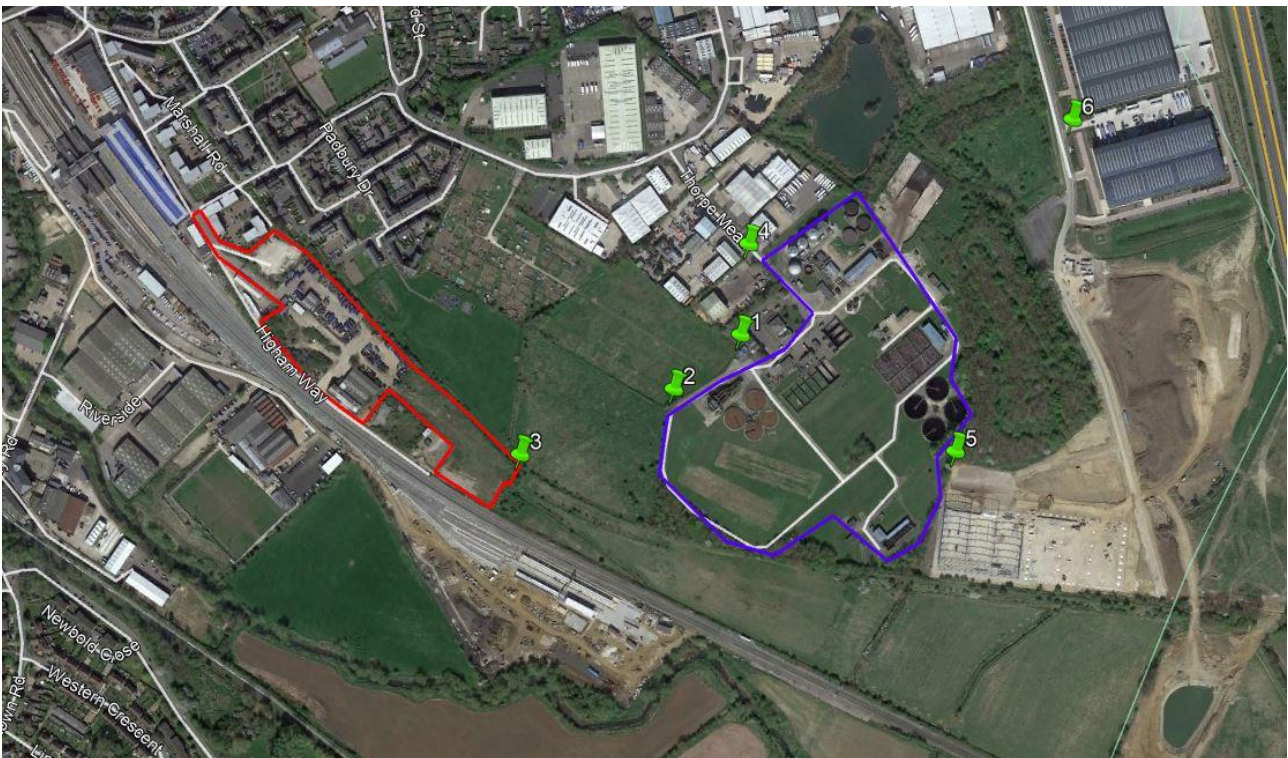


Figure 2: 2014 98%ile 1-hour Odour Contours

