ODOUR TECHNICAL PROGRESS NOTE

FOR

MONTPELIER ESTATES

AT

BRADFORD ROAD, TROWBRIDGE

AQ20476

22/12/2021

Prepared For

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1.0 ODOUR TECHNICAL NOTE

1.1 Background

Ensafe Consultants were commissioned by Montpelier Estates to undertake an Odour Impact Assessment in support of a proposed residential development at land off Bradford Road, Trowbridge.

An odour survey has been undertaken by Olfasense, the appointed Odour Surveyors, to provide inputs into an odour dispersion model. The model will be used to determine the likely odour impacts at the development site associated with operations at the adjacent Wastewater Treatment Works (WwTW) operated by Wessex Water.

The following sections provide a summary of the findings so far, correspondence with Wessex Water and our methodology for the detailed odour assessment.

1.2 Initial Results

Table 1 provides a summary of initial model results at existing local receptors surrounding the WwTW and at proposed sensitive locations at the proposed development. These results are based on current modelling inputs, which have not yet been approved by Wessex Water.

Receptor locations surrounding the development site have been considered to account for variable wind directions to ensure a robust approach. All receptors have been modelled at a height of 1.5m.

Table 1: Initial Odour Modelling Results

Location		Coordinates (m)		98th%ile 1-Hour Mean Concentration (ou_E/m^3)
ID	Location	X	Y	
D1	Farm Close	384596.6	158382.1	0.99
D2	Cockhill 1	384607.0	158285.2	0.74
D3	Cockhill 2	384632.4	158255.2	0.68
D4	Cockhill 3	384671.6	158180.2	0.50
D5	Bradford Road 1	384799.6	158059.1	0.29
D6	Innox Mill Close	384930.0	158103.0	0.37
D7	Francis Street	385084.6	158439.8	1.17
D8	Francis Street	385107.6	158504.4	1.25
D9	Langford Road	385193.0	158641.7	1.39
D10	Langford Road	385266.8	158739.7	1.12
D11	Langford Road	385344.1	158834.3	0.80
D12	Ladydown Mill	385366.0	159097.3	0.54
D13	Trowle	384327.8	158614.0	0.67
D14	Cockhill	384363.6	158490.5	0.61
D15	Development	384837.6	158222.0	0.53
D16	Development	384866.7	158223.6	0.56
D17	Development	384893.8	158225.9	0.58
D18	Development	384926.2	158228.9	0.60
D19	Development	384956.0	158232.2	0.63

As indicated in Table 1, the highest odour concentration was predicted at receptor D9 with a modelled concentration of 1.39ou_E/m^3. Receptor D9 is located in closer proximity to the WwTW than the proposed development site (D15 to D19) and is therefore considered to experience the most odourous conditions. The guidance provided by Wessex Water[1] states the following:

The odour contours to be displayed on the model must be agreed with the OMC. WW has no set standard as the odour contour specified will be site specific depending on the type of processes on site and the potential sensitivity of the development receptor. Odour contours used will be in line with WW Policy Plan ENVS120 15. Typical levels that may be used are odour exposures not exceeding a 98th percentile hourly mean concentration of 5, 3 or 1.5 ou_Em^3.

Critically, all current modelled receptor locations will fall below the 1.5ou_E/m^3 benchmark. Based on the current modelling inputs, the site will not be impacted by nuisance odours from on-site operations at the WwTW.

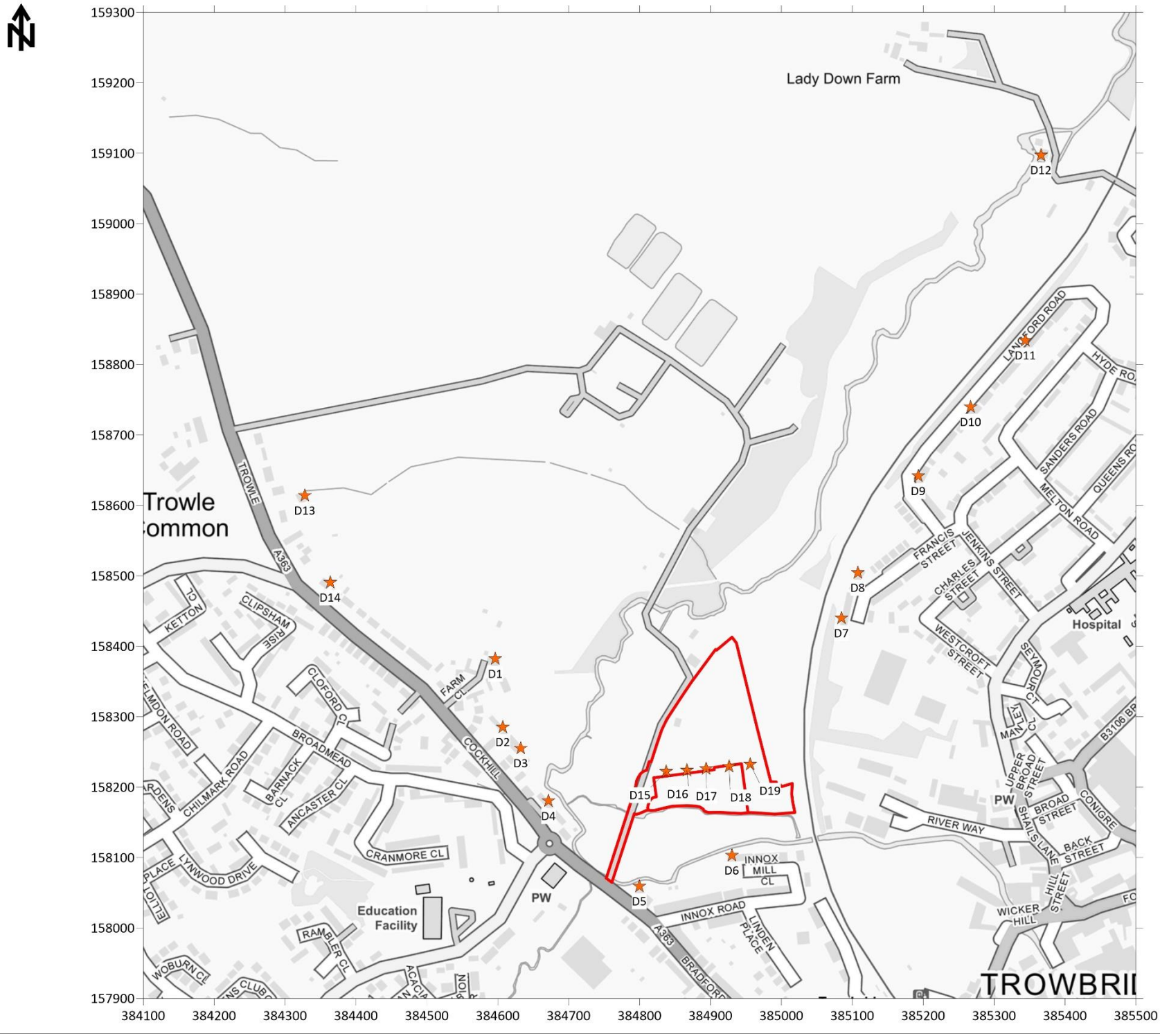
1.3 Further Work

At present the modelling inputs are under review by Wessex Water and Wood Plc. Modelling inputs were provided to Wessex Water on 13th October 2021. At the time of writing, we have received no formal response regarding the inputs from either Wessex Water or Wood Plc. Multiple attempts have been made to confirm if the inputs are acceptable, however no response has been received.

Once in receipt of a response, the modelling inputs will be updated to comply with any comments, providing the comments are reasonable and still ensure a realistic approach to the assessment. The dispersion model will then be undertaken and a contour of predicted hourly mean odour across the site will be produced. The detailed Odour Assessment will then be issued.

Note produced by Lewis Ellison, Senior Air Quality Consultant at Ensafe Consultants, 22th December2021

[1] Odour Risk Assessment Procedure For Proposed New Development 2019



Legend

Site Boundary

Receptor Location

Title

Figure 1

Site Location

Project

Bradford Road, Trowbridge

Project Number

AQ20476

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