

**Cambridge Waste Water Treatment Plant Relocation Project**  
Anglian Water Services Limited

# Appendix 18.3: Sniff Test Survey Report

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Report to  
Anglian Water – Cambridge WWTW Relocation Project  
Odour Field Survey  
On April/May 2022



Date of report 10 June 2022

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## Contents

1. INTRODUCTION AND DETAILS OF THE CURRENT AND PROPOSED SITES.....	4
1.1 INTRODUCTION .....	4
1.2 CURRENT CAMBRIDGE WWTW SITE.....	4
1.3 PROPOSED CAMBRIDGE WWTW RELOCATION SITE .....	5
2. METHOD OF ASSESSMENT .....	7
2.1 DATA COLLECTION METHOD .....	7
2.2 ASSESSORS DATA COLLECTION.....	8
3. METEOROLOGICAL DATA .....	9
4. FIELD ODOUR SURVEY .....	10
4.1 SNIFF SURVEY – 14 APRIL 2022 .....	12
4.2 SNIFF SURVEY – 05 MAY 2022 .....	16
4.3 SNIFF SURVEY – 13 MAY 2022 .....	21
5. SUMMARY OF OBSERVATIONS WHEN SEWAGE WORKS ODOURS WERE RECORDED.....	24
FIGURE 1 AERIAL VIEW OF EXISTING CAMBRIDGE SITE.....	4
FIGURE 2 DETAILED AERIAL VIEW OF EXISTING CAMBRIDGE SITE.....	5
FIGURE 3 AERIAL VIEW OF PROPOSED RELOCATION SITE (APPROX. BOUNDARY).....	5
FIGURE 4 ANGLIAN WATER PROPOSED NEW SITE LANDSCAPE PLAN.....	6
FIGURE 5 SCHEMATISATION TO DETERMINE THE CONCENTRATION OF ODOUR INTENSITY .....	7
FIGURE 6 SCREEN SHOT OF THE DATA COLLECTION SCREEN DURING THE CWWTRP SURVEY .....	8
FIGURE 7 CAMBRIDGE WINDROSE PLOT – CAMBRIDGE AIRPORT .....	9
FIGURE 8 AERIAL IMAGE OF CAMBRIDGE WWTW RELOCATION PROJECT PINNED SURVEY AREA WITHIN CURRENT BOUNDARY .....	10
FIGURE 9 AERIAL IMAGE OF CAMBRIDGE WORKS WITH ALL SURVEY MONITORING POINTS.....	11
FIGURE 10 SNIFF SURVEY 1 – COLOUR CODED PINS BASED ON HIGHEST ODOUR INTENSITY MEAN RESULTS FOR LOCATIONS WHERE ‘RELEVANT’ ODOUR(S) WERE DETECTED .....	15
FIGURE 11 SNIFF SURVEY 2 – COLOUR CODED PINS BASED ON HIGHEST ODOUR INTENSITY MEAN RESULTS FOR LOCATIONS WHERE ‘RELEVANT’ ODOUR(S) WERE DETECTED .....	20
FIGURE 12 SNIFF SURVEY 3 – COLOUR CODED PINS BASED ON HIGHEST ODOUR INTENSITY MEAN RESULTS FOR LOCATIONS WHERE ‘RELEVANT’ ODOUR(S) WERE DETECTED .....	23
TABLE 1 VDI 3940 ODOUR INTENSITY SCALE.....	7
TABLE 2 ODOUR OFFENSIVENESS SCALE .....	7
TABLE 3 ODOUR EXPOSURE AT TIME AND PLACE OF SAMPLING ON 14 APRIL 2022 .....	12-14
TABLE 4 VDI 3940 ODOUR INTENSITY SCALE (ADAPTED).....	14, 19, 22
TABLE 5 ODOUR EXPOSURE AT TIME AND PLACE OF SAMPLING ON 05 MAY 2022.....	16 - 19
TABLE 6 ODOUR EXPOSURE AT TIME AND PLACE OF SAMPLING ON 13 MAY 2022.....	21, 22
APPENDIX 1 .....	29

## Silsoe Odours Ltd.

Silsoe Odours Ltd. operates the independent odour measurement service with the first odour laboratory to gain UKAS accreditation since in October 2005.

We are a specialist odour consultancy with a passion for delivering independent, innovative research excellence and technical expertise. Our highly skilled team bring decades of experience in odour management, odour measurement, and consultancy to their work with clients across a range of sectors, including food, industry, planning and commercial. Our aim is to deliver excellent service for each one of our clients and, through doing so, to become leading influencers in the ways in which odour pollution is perceived and dealt with in the UK.

## 1. Introduction and Details of the Current and Proposed Sites

### 1.1. Introduction

At the CWWTRP Public Consultation CON2 engagement, Stakeholders continued to raise concerns about potential odour impacts at the proposed new works. The aim is to involve Stakeholders in compiling a background odour profile, to aid the understanding of odour in the wider area.

Silsoe Odours Ltd were engaged by Anglian Water to provide a field odour survey of the areas around the current and proposed Cambridge WRC site locations, as well as some of the current works, to assess the current odour impacts of the current works and other odour sources around both current and future sites.

The objective of the field odour survey is to subjectively record the odours perceived at observation points in the areas in and around the current and proposed Cambridge WRC site locations.

The field odour survey follows the guidance in the German guideline VDI 3940 Measurement of odour impact by field inspection and was carried out by the Silsoe Odours Ltd (registered/trained/certified) team over three separate days, to gain a spectrum of odour impacts under different weather conditions.

### 1.2. Current Cambridge WWTW site



Figure 1: Aerial view of existing Cambridge site.





Figure 2: Detailed aerial view of existing Cambridge site .

### 1.3. Proposed Cambridge WWTW relocation site



Figure 3: Aerial view of proposed relocation site.





Figure 4: Anglian Water proposed new site landscape plan

Further information regarding the new site and the associated pending DCO application can be found via the following link;

[Cambridge Waste Water Treatment Plant Relocation Project – About The Project](#)

## 2. Method of Assessment

### 2.1 Data Collection Method

*Course of the measurements.* The assessors are instructed to have stop eating or smoking at least 30 minutes before the measurement. At each measuring point the measuring procedure lasts 5 minutes and comprises the registration of the description of the odour, the odour intensity and offensiveness of the odour as well as a record of the wind and weather conditions.

*Performing the single measurement.* The duration of a single measurement at one measuring point is 5 minutes, which is at least needed to give with 80% reliability a representative assessment of the odour situation of a particular hour. The panelist must test the ambient air for a definitely recognisable odour. The panelist will use descriptors that are relevant to the situation e.g., sewage, rendering, cooking, fire, vegetation etc. and are allowed to choose descriptors not on the list against which he/she can judge the odour.

The panelist tests the ambient air by inhaling at 10 seconds intervals, which gives 30 samples in five minutes. Following the recognition of the odour the panelist is asked to assess the odour intensity on the 0 to 6 scale and offensiveness on a scale of 0-3.

All the responses are recorded using an "App" on a tablet.

<p><i>Table 1: VDI 3940 Odour Intensity Scale</i></p> <table border="1"> <tr><td>0</td><td>No Odour</td></tr> <tr><td>1</td><td>Very Weak</td></tr> <tr><td>2</td><td>Weak</td></tr> <tr><td>3</td><td>Distinct</td></tr> <tr><td>4</td><td>Strong</td></tr> <tr><td>5</td><td>Very Strong</td></tr> <tr><td>6</td><td>Extremely Strong</td></tr> </table>	0	No Odour	1	Very Weak	2	Weak	3	Distinct	4	Strong	5	Very Strong	6	Extremely Strong	<p><i>Figure 5: Schematiation to determine concentration of odour intensity</i></p>
0	No Odour														
1	Very Weak														
2	Weak														
3	Distinct														
4	Strong														
5	Very Strong														
6	Extremely Strong														
<p><i>Table 2: Odour Offensiveness Scale</i></p> <table border="1"> <tr><td>0</td><td>Not Offensive</td></tr> <tr><td>1</td><td>Low/potentially offensive</td></tr> <tr><td>2</td><td>Moderately offensive</td></tr> <tr><td>3</td><td>Highly offensive</td></tr> </table>	0	Not Offensive	1	Low/potentially offensive	2	Moderately offensive	3	Highly offensive							
0	Not Offensive														
1	Low/potentially offensive														
2	Moderately offensive														
3	Highly offensive														

### 2.2 Data processing.

The percentage of time a given descriptor was used and the mean intensity of the odours with that description are calculated. It is suggested that if a particular offensive odour is detected for more than 10% of the time that may cause annoyance. The occasions when the assessors detected offensive odours and the mean intensity score for of those odours are listed in the tables shown in Sections 4.1, 4.2 and 4.3 (Sniff Surveys).

### 2.3 Assessors Data Collection

Data is collected using the Silsoe Odours Survey app, data includes location of monitoring point, odour description and odour intensity. Wind data such as speed and direction are also recorded in the app.

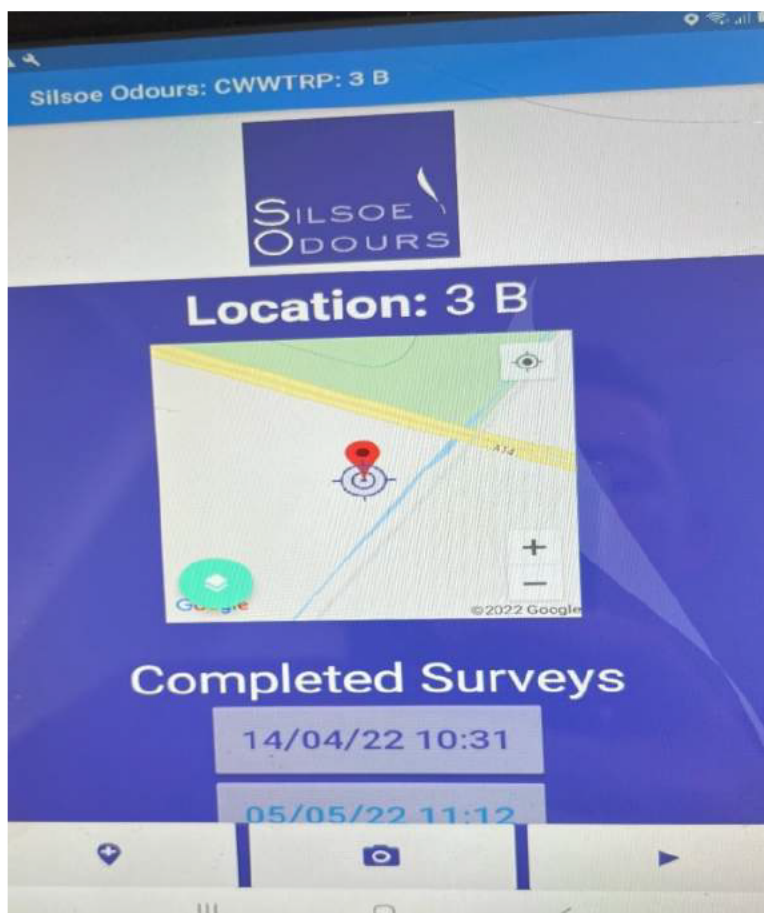


Figure 6: Screen shot of the data collection screen during the CWWTRP survey

Two odour assessors were present during the first odour assessment (14/04/2022), three odours assessors were present during the second and third odour assessments (05/05/22 and 13/05/22).



### 3. Meteorological Data

During the assessment surveyors monitored the changes in wind speed and wind direction using a handheld compass and anemometer. Temperatures have been taken from [REDACTED] using a local weather station located at Horningsea. Wind Rose diagram from [REDACTED] using data from Cambridge Airport. The prevailing wind for the area is West-South-Westerly.



[EGSC] Cambridge  
 Windrose Plot  
 Time Bounds: 01 Feb 1977 08:00 AM - 14 Jan 2022 04:50 PM Europe/London

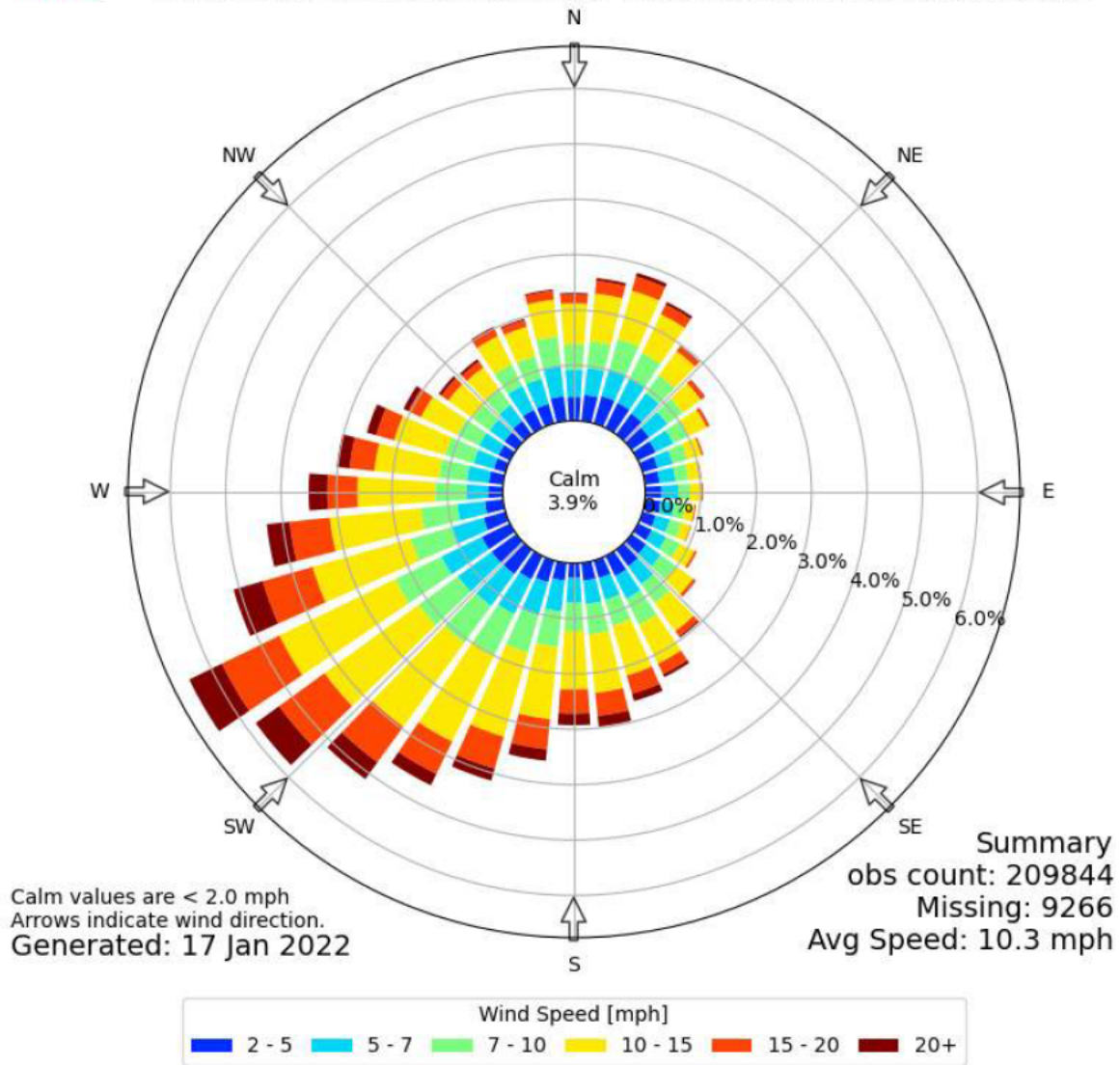


Figure 7: Cambridge Windrose Plot – Cambridge Airport



#### 4. Field Odour Survey

An initial investigation of the area was conducted prior to the first sniff survey in order to familiarise ourselves with the location and to identify designated observation points. On each visit local meteorological conditions were taken into consideration to establish the best place to conduct the odour surveys throughout each day. Panel members located themselves at approximately 25m intervals about the designated observation point indicated as 1A, 1B, 1C etc.

The following tables (p. 12 – 22) show the date, time and location of all odours detected at the survey locations in the 5-minute period monitoring period.



Figure 8: Aerial image of Cambridge WWTW Relocation Project pinned survey area within current boundary (image from Google Earth)





Figure 9: Aerial image of Cambridge works with initial Designated Observation Points. Actual observation points are shown in Appendix 1.

4.1 Sniff Survey Results table – 14 April 2022

Time	Point	Temp °C	Wind Strength (m/s)	Wind Direction	Odour Description	Odour Intensity mean	Max Odour Intensity	Max Offensiveness	Constant/ Intermittent
09:59	6 B	16.6	0.5	WSW	A Sewage	1	1	0	13%
09:59	6 B	16.6	0.5	WSW	No Odour	0	0	0	70%
09:59	6 B	16.6	0.5	WSW	B Compost*	2	2	0	17%
09:59	6 C	16.6	0.5	WSW	D Sludge/Sludge Tank	5	6	3	100%
10:10	5 B	16.8	0.9	WSW	No Odour	0	0	0	97%
10:10	5 B	16.8	0.9	WSW	B Compost	3	3	2	3%
10:13	5 C	16.9	0.9	SSW	C Vegetation	1	2	0	30%
10:13	5 C	16.9	0.9	SSW	A Sewage	2	2	1	7%
10:13	5 C	16.9	0.9	SSW	D Sludge/Sludge Tank	2	2	1	10%
10:13	5 C	16.9	0.9	SSW	No Odour	0	0	0	53%
10:21	4 B	16.9	0.9	WSW	No Odour	0	0	0	83%
10:21	4 B	16.9	0.9	WSW	C Vegetation	3	3	0	7%
10:21	4 B	16.9	0.9	WSW	D Sludge/Sludge Tank	2	2	1	3%
10:21	4 B	16.9	0.9	WSW	B Compost	2	2	0	7%
10:22	4 C	16.9	0.9	WSW	No Odour	0	0	0	77%
10:22	4 C	16.9	0.9	WSW	D Sludge/Sludge Tank	2	2	1	7%
10:22	4 C	16.9	0.9	WSW	E Earthy	2	2	0	13%
10:22	4 C	16.9	0.9	WSW	C Vegetation	2	2	0	3%
10:31	3 B	17.2	1	SSW	K Cake	2	2	1	17%
10:31	3 B	17.2	1	SSW	No Odour	0	0	0	70%
10:31	3 B	17.2	1	SSW	D Sludge/Sludge Tank	2	2	1	13%
10:33	3 C	17.9	1	SSW	D Sludge/Sludge Tank	5	5	3	97%
10:33	3 C	17.9	1	SSW	No Odour	0	0	0	3%
11:06	2 B	18.2	0.8	WSW	No Odour	0	0	0	90%
11:06	2 B	18.2	0.8	WSW	C Vegetation	2	2	0	10%
11:07	2 C	18.2	0.8	WSW	J Sweet Chemically	2	2	1	27%
11:07	2 C	18.2	0.8	WSW	No Odour	0	0	0	63%
11:07	2 C	18.2	0.8	WSW	D Sludge/Sludge Tank	1	2	1	10%
11:16	1 B	18.5	0.6	WSW	No Odour	0	0	0	63%
11:16	1 B	18.5	0.6	WSW	C Vegetation	3	3	0	10%
11:16	1 B	18.5	0.6	WSW	D Sludge/Sludge Tank	2	2	1	27%
11:17	1 C	18.4	0.6	WSW	No Odour	0	0	0	60%
11:17	1 C	18.4	0.6	WSW	D Sludge/Sludge Tank	3	4	2	40%
11:36	16 B	18	0.8	WSW	F Farm	3	3	2	30%



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11:36	16 B	18	0.8	WSW	No Odour	0	0	0	63%
11:36	16 B	18	0.8	WSW	C Vegetation	3	3	0	7%
11:38	16 C	18	0.8	WSW	F Farm	2	3	1	23%
11:38	16 C	18	0.8	WSW	No Odour	0	0	0	20%
11:38	16 C	18	0.8	WSW	C Vegetation	2	2	0	37%
11:38	16 C	18	0.8	WSW	H Manure	2	3	2	17%
11:38	16 C	18	0.8	WSW	D Sludge/Sludge Tank	2	2	0	3%
11:58	15 B	18.4	1.4	WSW	No Odour	0	0	0	80%
11:58	15 B	18.4	1.4	WSW	C Vegetation	3	3	0	20%
11:59	15 C	18.4	1.4	WSW	C Vegetation	2	3	0	93%
11:59	15 C	18.4	1.4	WSW	D Sludge/Sludge Tank	3	3	0	3%
11:59	15 C	18.4	1.4	WSW	No Odour	0	0	0	3%
12:12	9 B	18.5	1.2	WSW	No Odour	0	0	0	100%
12:12	9 C	18.5	1.2	WSW	E Earthy*	1	2	0	100%
12:23	8 B	18.2	1.7	WSW	M Traffic	2	2	1	7%
12:23	8 B	18.2	1.7	WSW	No Odour	0	0	0	80%
12:23	8 B	18.2	1.7	WSW	P Vegetation	3	3	0	13%
12:24	8 C	18.2	1.7	WSW	C Vegetation	1	2	0	93%
12:24	8 C	18.2	1.7	WSW	D Sludge/Sludge Tank	2	2	0	7%
12:33	17 B	18.2	1.4	WSW	No Odour	0	0	0	63%
12:33	17 B	18.2	1.4	WSW	P Vegetation	3	3	0	27%
12:33	17 B	18.2	1.4	WSW	L Cooking	3	3	1	10%
12:34	17 C	18.2	1.4	WSW	No Odour	0	0	0	100%
12:45	18 B	18.5	1.4	WSW	No Odour	0	0	0	80%
12:45	18 B	18.5	1.4	WSW	L Cooking	3	3	2	20%
12:47	18 C	18.1	1.4	WSW	No Odour	0	0	0	93%
12:47	18 C	18.1	1.4	WSW	C Vegetation	1	1	0	7%
13:15	13.3 C	17.5	1	WSW	No Odour	0	0	0	100%
13:16	13.3 B	17.5	1	WSW	No Odour	0	0	0	100%
13:28	13.2 B	18.1	0.5	WSW	No Odour	0	0	0	90%
13:28	13.2 B	18.1	0.5	WSW	I River Water	2	2	1	3%
13:28	13.2 B	18.1	0.5	WSW	C Vegetation	3	3	0	7%
13:29	13.2 C	18.1	0.5	WSW	I River Water	0	0	0	3%
13:29	13.2 C	18.1	0.5	WSW	No Odour	0	0	0	60%
13:29	13.2 C	18.1	0.5	WSW	C Vegetation	2	3	0	37%
13:37	13.1 B	18.3	0.3	WSW	No Odour	0	0	0	93%
13:37	13.1 B	18.3	0.3	WSW	C Vegetation	3	3	0	7%
13:39	13.1 C	18.3	0.3	WSW	C Vegetation	2	2	0	30%
13:39	13.1 C	18.3	0.3	WSW	No Odour	0	0	0	63%
13:39	13.1 C	18.3	0.3	WSW	I River Water	2	2	1	7%
13:53	13 B	18.1	0.4	WSW	No Odour	0	0	0	83%
13:53	13 B	18.1	0.4	WSW	C Vegetation	3	3	0	10%
13:53	13 B	18.1	0.4	WSW	M Traffic	3	3	2	7%

13:53	13 C	18.1	0.4	WSW	No Odour	0	0	0	30%
13:53	13 C	18.1	0.4	WSW	D Sludge/Sludge Tank	3	4	2	47%
13:53	13 C	18.1	0.4	WSW	C Vegetation	1	1	0	23%
14:03	21 B	18.1	1.1	WSW	D Sludge/Sludge Tank	2	2	1	17%
14:03	21 B	18.1	1.1	WSW	No Odour	0	0	0	67%
14:03	21 B	18.1	1.1	WSW	C Vegetation	3	3	0	17%
14:03	21C	18.1	1.1	WSW	D Sludge/Sludge Tank	2	3	1	10%
14:03	21C	18.1	1.1	WSW	No Odour	0	0	0	63%
14:03	21C	18.1	1.1	WSW	C Vegetation	1	2	0	27%
14:14	14 B	18.4	2.2	WSW	No Odour	0	0	0	100%
14:16	14 C	18.5	2.2	WSW	No Odour	0	0	0	50%
14:16	14 C	18.5	2.2	WSW	C Vegetation	1	1	0	43%
14:16	14 C	18.5	2.2	WSW	I River Water	2	2	1	7%
16:15	19 B	18.8	0.6	WSW	No Odour	0	0	0	90%
16:15	19 B	18.8	0.6	WSW	C Vegetation	2	2	0	10%
16:16	19 C	18.8	0.6	WSW	No Odour	0	0	0	100%
16:41	7 C	18.8	0.6	WSW	No Odour	0	0	0	100%
16:41	7 B	18.8	0.6	WSW	No Odour	0	0	0	100%

Table 3: Odour Exposure at time and place of sampling on 14 April 2022

Table 4: VDI 3940 Odour Intensity Scale (adapted)

0		No Odour
1		Very Weak
2		Weak
3		Distinct
4		Strong
5		Very Strong
6		Extremely Strong

N.B. \* Compost and Earthy odour descriptors often associated with the odour from ASP (5B).



Figure 10: Sniff Survey 1 – Colour coded pins based on highest Odour Intensity Mean results for locations where ‘relevant’ odour(s) were detected



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## 4.2 Sniff Survey – 05 May 2022

Time	Point	Temp °C	Wind Strength (m/s)	Wind Direction	Odour Description	Odour Intensity mean	Max Odour Intensity	Max Offensiveness	Constant/ Intermittent
10:34	6 A	16	1.4	NW	D Sludge/Sludge Tank	3	4	3	70%
10:34	6 A	16	1.4	NW	No Odour	0	0	0	27%
10:34	6 A	16	1.4	NW	D Sludge/Sludge Tank	4	4	3	3%
10:35	6 C	16	1.4	NW	C Vegetation	3	3	1	3%
10:35	6 C	16	1.4	NW	D Sludge/Sludge Tank	2	4	2	90%
10:35	6 C	16	1.4	NW	No Odour	0	0	0	7%
10:35	6 B	16	1.4	NW	D Sludge/Sludge Tank	5	5	3	90%
10:35	6 B	16	1.4	NW	No Odour	0	0	0	10%
10:46	5 A	16.2	0.9	NW	No Odour	0	0	0	57%
10:46	5 A	16.2	0.9	NW	C Vegetation	3	3	0	23%
10:46	5 A	16.2	0.9	NW	A Sewage	3	3	2	20%
10:46	5 C	16.2	0.9	NW	No Odour	0	0	0	63%
10:46	5 C	16.2	0.9	NW	A Sewage	1	2	1	37%
10:48	5 B	16.2	0.9	NW	A Sewage	3	3	2	17%
10:48	5 B	16.2	0.9	NW	D Sludge/Sludge Tank	4	5	2	37%
10:48	5 B	16.2	0.9	NW	J Sweet Chemically	2	2	1	13%
10:48	5 B	16.2	0.9	NW	E Earthy*	2	2	1	10%
10:48	5 B	16.2	0.9	NW	D Sludge/Sludge Tank	4	4	2	7%
10:48	5 B	16.2	0.9	NW	B Compost	3	3	2	3%
10:48	5 B	16.2	0.9	NW	B Compost	3	3	2	13%
10:59	4 C	16.5	1.6	NW	D Sludge/Sludge Tank	3	5	3	53%
10:59	4 C	16.5	1.6	NW	No Odour	0	0	0	47%
10:59	4 B	16.5	1.6	NW	J Sweet Chemically	2	3	2	23%
10:59	4 B	16.5	1.6	NW	D Sludge/Sludge Tank	4	4	2	30%
10:59	4 B	16.5	1.6	NW	B Compost	3	3	2	7%
10:59	4 B	16.5	1.6	NW	E Earthy	2	2	1	37%
10:59	4 B	16.5	1.6	NW	No Odour	0	0	0	3%
10:59	4 A	16.5	1.6	NW	J Sweet Chemically	3	3	1	7%
10:59	4 A	16.5	1.6	NW	E Earthy*	2	2	1	3%
10:59	4 A	16.5	1.6	NW	D Sludge/Sludge Tank	2	3	2	23%
10:59	4 A	16.5	1.6	NW	No Odour	0	0	0	67%
11:11	3 C	16.8	1.3	NW	No Odour	0	0	0	7%
11:11	3 C	16.8	1.3	NW	C Vegetation	2	2	0	10%
11:11	3 C	16.8	1.3	NW	D Sludge/Sludge Tank	3	4	2	83%

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11:12	3 A	16.8	1.3	NW	K Cake	4	5	3	37%
11:12	3 A	16.8	1.3	NW	J Sweet Chemically	3	4	3	30%
11:12	3 A	16.8	1.3	NW	No Odour	0	0	0	13%
11:12	3 A	16.8	1.3	NW	D Sludge/Sludge Tank	3	5	3	20%
11:12	3 B	16.8	1.3	NW	K Cake	4	5	3	27%
11:12	3 B	16.8	1.3	NW	D Sludge/Sludge Tank	5	6	3	70%
11:12	3 B	16.8	1.3	NW	No Odour	0	0	0	3%
11:31	2 C	17.5	0.8	NW	G Food Van	2	3	2	33%
11:31	2 C	17.5	0.8	NW	No Odour	0	0	0	67%
11:31	2 B	17.5	0.8	NNW	X Curry	3	3	2	77%
11:31	2 B	17.5	0.8	NNW	No Odour	0	0	0	13%
11:31	2 B	17.5	0.8	NNW	Y Food	2	2	1	10%
11:31	2 A	17.5	0.8	NW	No Odour	0	0	0	53%
11:31	2 A	17.5	0.8	NW	A Sewage	1	1	0	7%
11:31	2 A	17.5	0.8	NW	C Vegetation	3	3	0	23%
11:31	2 A	17.5	0.8	NW	L Cooking	3	3	2	17%
11:41	1 C	17.5	1.1	NW	No Odour	0	0	0	67%
11:41	1 C	17.5	1.1	NW	D Sludge/Sludge Tank	2	3	2	27%
11:41	1 C	17.5	1.1	NW	C Vegetation	2	2	0	7%
11:41	1 B	17.5	1.1	NW	D Sludge/Sludge Tank	3	4	2	37%
11:41	1 B	17.5	1.1	NW	No Odour	0	0	0	20%
11:41	1 B	17.5	1.1	NW	D Sludge/Sludge Tank	2	2	1	3%
11:41	1 B	17.5	1.1	NW	C Vegetation	2	2	0	40%
11:42	1 A	17.5	1.4	NW	C Vegetation	3	3	0	17%
11:42	1 A	17.5	1.4	NW	No Odour	0	0	0	77%
11:42	1 A	17.5	1.4	NW	M Traffic	3	3	2	7%
11:58	19 B	17.3	2.4	NW	No Odour	0	0	0	3%
11:58	19 B	17.3	2.4	NW	C Vegetation	2	3	0	97%
11:58	19 C	17.3	2.4	NW	C Vegetation	2	3	0	63%
11:58	19 C	17.3	2.4	NW	No Odour	0	0	0	37%
11:58	19 A	17.3	2.4	NW	C Vegetation	2	3	0	17%
11:58	19 A	17.3	2.4	NW	J Sweet Chemically	2	2	1	13%
11:58	19 A	17.3	2.4	NW	No Odour	0	0	0	67%
11:58	19 A	17.3	2.4	NW	K Cake	3	3	0	3%
12:11	7 A	17.1	1.4	NW	C Vegetation	3	3	0	27%
12:11	7 A	17.1	1.4	NW	No Odour	0	0	0	73%
12:12	7 B	17.1	1.4	NW	No Odour	0	0	0	23%
12:12	7 B	17.1	1.4	NW	C Vegetation	1	2	0	77%
12:12	7 C	17.1	1.4	NW	C Vegetation	2	2	0	27%
12:12	7 C	17.1	1.4	NW	No Odour	0	0	0	73%
13:25	16 A	18.6	0.8	WNW	C Vegetation	3	3	0	30%
13:25	16 A	18.6	0.8	WNW	No Odour	0	0	0	70%



## Anglian Water – Cambridge WWTW Relocation Project

13:27	16 B	18.6	0.8	WNW	Z Cut Grass	1	2	0	100%
13:27	16 C	18.6	0.8	WNW	No Odour	0	0	0	100%
13:40	15 A	18.4	0.8	NNW	C Vegetation	3	3	0	20%
13:40	15 A	18.4	0.8	NNW	No Odour	0	0	0	67%
13:40	15 A	18.4	0.8	NNW	L Cooking	3	3	2	10%
13:40	15 A	18.4	0.8	NNW	M Traffic	3	3	2	3%
13:40	15 B	18.4	0.8	WSW	C Vegetation	3	3	0	100%
13:40	15 C	18.4	0.8	WNW	No Odour	0	0	0	100%
13:55	9 B	18.5	2.1	WNW	C Vegetation	1	2	0	100%
13:55	9 A	18.5	2.1	WNW	C Vegetation	3	3	0	13%
13:55	9 A	18.5	2.1	WNW	No Odour	0	0	0	87%
13:56	9 C	18.5	2.1	WNW	C Vegetation	2	2	0	40%
13:56	9 C	18.5	2.1	WNW	No Odour	0	0	0	60%
14:06	8 A	19.3	0.6	WNW	C Vegetation	3	3	0	47%
14:06	8 A	19.3	0.6	WNW	No Odour	0	0	0	53%
14:07	8 B	19.3	0.6	NNW	C Vegetation	3	3	0	3%
14:07	8 B	19.3	0.6	NNW	No Odour	0	0	0	3%
14:07	8 B	19.3	0.6	NNW	C Vegetation	3	3	0	93%
14:07	8 C	19.3	0.6	WNW	C Vegetation	2	2	0	53%
14:07	8 C	19.3	0.6	WNW	No Odour	0	0	0	47%
14:17	17 A	19.8	0.4	WNW	C Vegetation	3	3	0	20%
14:17	17 A	19.8	0.4	WNW	No Odour	0	0	0	80%
14:17	17 B	19.8	0.4	WNW	C Vegetation	1	2	0	100%
14:18	17 C	19.8	0.4	WNW	C Vegetation	2	2	0	40%
14:18	17 C	19.8	0.4	WNW	No Odour	0	0	0	60%
14:29	18 A	18.9	0.5	NNE	No Odour	0	0	0	100%
14:30	18 B	18.9	0.5	NNE	No Odour	0	0	0	100%
14:30	18 C	18.9	0.5	NNE	No Odour	0	0	0	100%
14:55	13.3 B	19	0.5	WNW	No Odour	0	0	0	100%
14:55	13.3 C	19	0.5	WNW	No Odour	0	0	0	100%
14:55	13.3 A	19	0.5	WNW	No Odour	0	0	0	100%
15:10	13.2 A	20.1	0.3	WNW	No Odour	0	0	0	100%
15:11	13.2 B	20.1	0.3	WNW	No Odour	0	0	0	57%
15:11	13.2 B	20.1	0.3	WNW	C Vegetation	2	2	0	43%
15:12	13.2 C	20.1	0.3	WNW	No Odour	0	0	0	100%
15:21	13.1 A	21.6	0	WNW	C Vegetation	3	3	0	23%
15:21	13.1 A	21.6	0	WNW	No Odour	0	0	0	77%
15:23	13.1 B	21.6	0	WNW	No Odour	0	0	0	100%
15:24	13.1 C	21.6	0	WNW	No Odour	0	0	0	87%
15:24	13.1 C	21.6	0	WNW	D Sludge/Sludge Tank	1	1	1	13%
15:35	13 C	20.6	1.2	WNW	No Odour	0	0	0	83%
15:35	13 C	20.6	1.2	WNW	D Sludge/Sludge Tank	1	2	1	17%
15:37	13 B	20.6	1.2	WNW	No Odour	0	0	0	13%

## Anglian Water – Cambridge WWTW Relocation Project

15:37	13 B	20.6	1.2	WNW	D Sludge/Sludge Tank	2	2	1	10%
15:37	13 B	20.6	1.2	WNW	J Sweet Chemically	1	1	0	3%
15:37	13 B	20.6	1.2	WNW	D Sludge/Sludge Tank	3	4	2	20%
15:37	13 B	20.6	1.2	WNW	E Earthy	1	1	0	17%
15:37	13 B	20.6	1.2	WNW	C Vegetation	1	2	0	37%
15:38	13 A	20.6	1.2	WNW	D Sludge/Sludge Tank	3	4	3	33%
15:38	13 A	20.6	1.2	WNW	No Odour	0	0	0	67%
15:48	21A	20.9	0	WNW	C Vegetation	3	3	0	43%
15:48	21A	20.9	0	WNW	No Odour	0	0	0	57%
15:48	21 B	20.9	0	WNW	C Vegetation	3	3	0	100%
15:49	21C	20.9	0	WNW	C Vegetation	2	2	0	60%
15:49	21C	20.9	0	WNW	No Odour	0	0	0	40%
16:00	14 C	20.4	0.3	WNW	C Vegetation	2	3	0	27%
16:00	14 C	20.4	0.3	WNW	No Odour	0	0	0	73%
16:01	14 A	20.4	0.3	WNW	No Odour	0	0	0	100%
16:02	14 B	20.4	0.3	WNW	No Odour	0	0	0	7%
16:02	14 B	20.4	0.3	WNW	I River Water	3	3	1	93%

Table 5: Odour Exposure at time and place of sampling on 05 May 2022

Table 4: VDI 3940 Odour Intensity Scale (adapted)

0		No Odour
1		Very Weak
2		Weak
3		Distinct
4		Strong
5		Very Strong
6		Extremely Strong





Figure 11: Sniff Survey 2 – Colour coded pins based on highest Odour Intensity Mean results for locations where ‘relevant’ odour(s) were detected



4.3 Sniff Survey – 13 May 2022

Time	Point	Temp °C	Wind Strength (m/s)	Wind Direction	Odour Description	Odour Intensity mean	Max Odour Intensity	Max Offensiveness	Constant/ Intermittent
10:32	7 A	16.1	2.3	WSW	No Odour	0	0	0	100%
10:49	19 A	16.6	0.9	SSW	No Odour	0	0	0	67%
10:49	19 A	16.6	0.9	SSW	A Sewage	2	2	1	13%
10:49	19 A	16.6	0.9	SSW	D Sludge/Sludge Tank	3	3	2	10%
10:49	19 A	16.6	0.9	SSW	D Sludge/Sludge Tank	3	3	2	10%
11:00	2 C	16.5	2.6	WSW	No Odour	0	0	0	100%
11:00	2 B	16.5	2.6	WSW	No Odour	0	0	0	100%
11:06	1 B	16.6	4.2	WSW	No Odour	0	0	0	100%
11:13	6 C	16.5	3.5	WSW	D Sludge/Sludge Tank	3	4	2	100%
11:14	6 B	16.5	3.5	WSW	D Sludge/Sludge Tank	3	4	3	100%
11:14	6 A	16.5	1.2	SSW	D Sludge/Sludge Tank	4	5	3	100%
11:22	5 C	17.1	2.9	WSW	No Odour	0	0	0	70%
11:22	5 C	17.1	2.9	WSW	D Sludge/Sludge Tank	1	2	1	30%
11:23	5 A	17.1	2.9	WSW	E Earthy	1	1	0	17%
11:23	5 A	17.1	2.9	WSW	No Odour	0	0	0	23%
11:23	5 A	17.1	2.9	WSW	D Sludge/Sludge Tank	4	5	3	20%
11:23	5 A	17.1	2.9	WSW	D Sludge/Sludge Tank	4	5	3	33%
11:23	5 A	17.1	2.9	WSW	B Compost	3	3	1	7%
11:24	5 B	17.1	2.2	WSW	No Odour	0	0	0	63%
11:24	5 B	17.1	2.2	WSW	A Sewage	1	2	1	37%
11:33	4 C	17.6	3.8	WSW	No Odour	0	0	0	100%
11:34	4 B	17.6	3.8	WSW	No Odour	0	0	0	50%
11:34	4 B	17.6	3.8	WSW	D Sludge/Sludge Tank	2	3	2	50%
11:34	4 A	17.6	2.7	WSW	D Sludge/Sludge Tank	3	3	2	20%
11:34	4 A	17.6	2.7	WSW	D Sludge/Sludge Tank	2	3	2	20%
11:34	4 A	17.6	2.7	WSW	No Odour	0	0	0	60%
11:41	3 C	18	4.4	WSW	D Sludge/Sludge Tank	1	3	2	57%
11:41	3 C	18	4.4	WSW	No Odour	0	0	0	43%
11:42	3 B	18	4.4	WSW	D Sludge/Sludge Tank	3	4	3	100%
11:43	3 A	18.1	4.1	WSW	D Sludge/Sludge Tank	4	5	3	30%
11:43	3 A	18.1	4.1	WSW	D Sludge/Sludge Tank	4	5	3	70%
12:24	14 B	18.4	3.4	WSW	No Odour	0	0	0	90%

## Anglian Water – Cambridge WWTW Relocation Project

12:24	14 B	18.4	3.4	WSW	A Sewage	2	2	1	10%
12:26	16 A	18.4	2.4	WSW	C Vegetation	2	2	0	23%
12:26	16 A	18.4	2.4	WSW	No Odour	0	0	0	77%
12:37	13 B	18	3.8	WSW	No Odour	0	0	0	100%
12:39	15 A	18	1.8	WSW	No Odour	0	0	0	100%
12:43	20 C	18.1	5.3	WSW	C Vegetation	1	1	0	100%
12:51	13.1 B	18.5	3.3	WSW	C Vegetation	3	3	0	17%
12:51	13.1 B	18.5	3.3	WSW	No Odour	0	0	0	80%
12:51	13.1 B	18.5	3.3	WSW	Z Cut Grass	3	3	0	3%
12:54	9 A	18.6	4.1	WSW	No Odour	0	0	0	100%
13:00	13.2 B	18.6	1.9	WSW	No Odour	0	0	0	100%
13:06	8 A	18.6	2.3	WSW	No Odour	0	0	0	100%
13:15	17 A	18.9	4.5	WSW	C Vegetation	3	3	0	40%
13:15	17 A	18.9	4.5	WSW	No Odour	0	0	0	60%
13:18	13.3 B	19	2.8	WSW	No Odour	0	0	0	100%
13:18	10 C	19	4.3	WSW	No Odour	0	0	0	100%
13:27	18 A	19.4	1.2	WSW	No Odour	0	0	0	100%
13:48	12 A	19.4	5.9	WSW	No Odour	0	0	0	100%
13:48	12 B	19.4	5.9	WSW	C Vegetation	3	3	0	7%
13:48	12 B	19.4	5.9	WSW	No Odour	0	0	0	93%
13:49	12 C	19.4	5.9	WSW	C Vegetation	2	2	0	100%
14:01	11 B	19.1	1.9	WSW	C Vegetation	3	3	0	50%
14:01	11 B	19.1	1.9	WSW	No Odour	0	0	0	50%
14:02	11 A	19.1	1.9	WSW	C Vegetation	2	2	0	27%
14:02	11 A	19.1	1.9	WSW	No Odour	0	0	0	73%
14:02	11 C	19.1	1.9	SSW	C Vegetation	2	2	0	100%

Table 6: Odour Exposure at time and place of sampling on 13 May 2022

Table 4: VDI 3940 Odour Intensity Scale (adapted)

0		No Odour
1		Very Weak
2		Weak
3		Distinct
4		Strong
5		Very Strong
6		Extremely Strong





Figure 12: Sniff Survey 3 – Colour coded pins based on highest Odour Intensity Mean results for locations where ‘relevant’ odour(s) were detected



## 5. Summary of Relevant Observations

Day 1 – 14 April 2022

- Odour with a description of Sewage was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
6 B	09:59	A Sewage	1	1	0	13%
5 C	10:13	A Sewage	2	2	1	7%

- Odour with a description of Sludge/Sludge Tank was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
6 C	09:59	D Sludge/Sludge Tank	5	6	3	100%
5 C	10:13	D Sludge/Sludge Tank	2	2	1	10%
4 B	10:21	D Sludge/Sludge Tank	2	2	1	3%
4 C	10:22	D Sludge/Sludge Tank	2	2	1	7%
3 B	10:31	D Sludge/Sludge Tank	2	2	1	13%
3 C	10:33	D Sludge/Sludge Tank	5	5	3	97%
2 C	11:07	D Sludge/Sludge Tank	1	2	1	10%
1 B	11:16	D Sludge/Sludge Tank	2	2	1	27%
1 C	11:17	D Sludge/Sludge Tank	3	4	2	40%
16 C	11:38	D Sludge/Sludge Tank	2	2	0	3%
15 C	11:59	D Sludge/Sludge Tank	3	3	0	3%
8 C	12:24	D Sludge/Sludge Tank	2	2	0	7%
13 C	13:53	D Sludge/Sludge Tank	3	4	2	47%
21 B	14:03	D Sludge/Sludge Tank	2	2	1	17%
21 C	14:03	D Sludge/Sludge Tank	2	3	1	10%

- Odour with a description of Cake was detected at the following location:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
3 B	10:31	K Cake	2	2	1	17%

- Odour with a description of Compost was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
6B	09:59	B Compost	2	2	0	17%
5B	10:10	B Compost	3	3	2	3%
4B	10:21	B Compost	2	2	0	7%



- Odour with a description of Sewage was detected at the following locations

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
5A	10:46	A Sewage	3	3	2	20%
5C	10:46	A Sewage	1	2	1	37%
5B	10:48	A Sewage	3	3	2	17%
2A	11:31	A Sewage	1	1	0	7%

- Odour with a description of Sludge/Sludge Tank was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
6 A	10:34	D Sludge/Sludge Tank	3	4	3	70%
6 A	10:34	D Sludge/Sludge Tank	4	4	3	3%
6 C	10:35	D Sludge/Sludge Tank	2	4	2	90%
6 B	10:35	D Sludge/Sludge Tank	5	5	3	90%
5 B	10:48	D Sludge/Sludge Tank	4	5	2	37%
5 B	10:48	D Sludge/Sludge Tank	4	4	2	7%
4 C	10:59	D Sludge/Sludge Tank	3	5	3	53%
4 B	10:59	D Sludge/Sludge Tank	4	4	2	30%
4 A	10:59	D Sludge/Sludge Tank	2	3	2	23%
3 C	11:11	D Sludge/Sludge Tank	3	4	2	83%
3 A	11:12	D Sludge/Sludge Tank	3	5	3	20%
3 B	11:12	D Sludge/Sludge Tank	5	6	3	70%
1 C	11:41	D Sludge/Sludge Tank	2	3	2	27%
1 B	11:41	D Sludge/Sludge Tank	3	4	2	37%
1 B	11:41	D Sludge/Sludge Tank	2	2	1	3%
13.1 C	15:24	D Sludge/Sludge Tank	1	1	1	13%
13 C	15:35	D Sludge/Sludge Tank	1	2	1	17%
13 B	15:37	D Sludge/Sludge Tank	2	2	1	10%
13 B	15:37	D Sludge/Sludge Tank	3	4	2	20%
13 A	15:38	D Sludge/Sludge Tank	3	4	3	33%

- Odour with a description of Cake was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
3 A	11:12	K Cake	4	5	3	37%
3 A	11:12	K Cake	4	5	3	27%
19 A	11:58	K Cake	3	3	0	3%

- Odour with a description of Compost was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
5B	10:48	B Compost	3	3	2	16%
4B	10:21	B Compost	3	3	2	7%

- Odour with a description of Sewage was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
19 A	10:49	A Sewage	2	2	1	13%
5 B	11:24	A Sewage	1	2	1	37%
14 B	12:24	A Sewage	2	2	1	10%

- Odour with a description of Sludge/Sludge Tank was detected at the following locations:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
19 A	10:49	D Sludge/Sludge Tank	3	3	2	10%
19 A	10:49	D Sludge/Sludge Tank	3	3	2	10%
6 C	11:13	D Sludge/Sludge Tank	3	4	2	100%
6 B	11:14	D Sludge/Sludge Tank	3	4	3	100%
6 A	11:14	D Sludge/Sludge Tank	4	5	3	100%
5 C	11:22	D Sludge/Sludge Tank	1	2	1	30%
5 A	11:23	D Sludge/Sludge Tank	4	5	3	20%
5 A	11:23	D Sludge/Sludge Tank	4	5	3	33%
4 B	11:34	D Sludge/Sludge Tank	2	3	2	50%
4 A	11:34	D Sludge/Sludge Tank	3	3	2	20%
4 A	11:34	D Sludge/Sludge Tank	2	3	2	20%
3 C	11:41	D Sludge/Sludge Tank	1	3	2	57%
3 B	11:42	D Sludge/Sludge Tank	3	4	3	100%
3 A	11:43	D Sludge/Sludge Tank	4	5	3	30%
3 A	11:43	D Sludge/Sludge Tank	4	5	3	70%

- Odour with a description of Compost was detected at the following location:

Point	Time	Odour Description	Odour Intensity mean	Maximum Odour Intensity	Max Offensiveness	Constant/ Intermittent
5A	11:23	B Compost	3	3	1	7%

## Appendix 1 Sniff Survey Locations

Descriptions of Designated Observation Points used in this survey.

1. Cowley Road/Milton Road intersect. Page 30
2. Cowley Road/Cambridge Road at pedestrian access point to Jane Coston Bridge. Page 31
3. WRC site boundary north-east corner. Page 31
4. WRC site boundary south-east corner. Page 32
5. 5A and 5C near D works ASP but downwind of AD area and Secondary Digester Tanks and inlet processes. 5B Down wind of C works ASP. Page 32
6. WRC site Secondary Digester Tanks. Page 33
7. Sycamore Recreation Ground. Page 33
8. Horningsea Road – A14 Slip (Fen Dittion side of A14). Page 34
9. Horningsea Road – Biggin Abbey junction. Page 35
10. Snout Corner Fen Track – Low Fen Drove Way (derelict barn/building). Page 35
11. Low Fen Drove Way Bridge over A14. Page 36
12. Low Fen Drove Way (by pink house). Page 36
13. River Cam at A14 bridge. Page 37
  - 13.1 River Cam at Grassy Corner (bench & path). Page 37
  - 13.2 River Cam, across from tributary. Page 38
  - 13.3 River Cam at Chisholm Trail Bridge. Page 38
14. River Cam at Baits Lock. Page 39
15. Horningsea at Plough & Fleece. Page 39
16. Horningsea at Gayton Farm. Page 40
17. Horningsea Road/Musgrave Way intersect. Page 40
18. Horningsea Road at Fen Ditton village marker. Page 41
19. Milton Country Park – Car Park. Page 41
20. Station Road at farm buildings. Page 42
21. Field entrance off river path. Page 42

Designated  
Observation  
Point

Picture of Desinated Observation Point

Pin locations surveyed at Designated Observation Point

1

Latitude  
52°13'56.44"N

Longitude  
0° 9'7.20"E

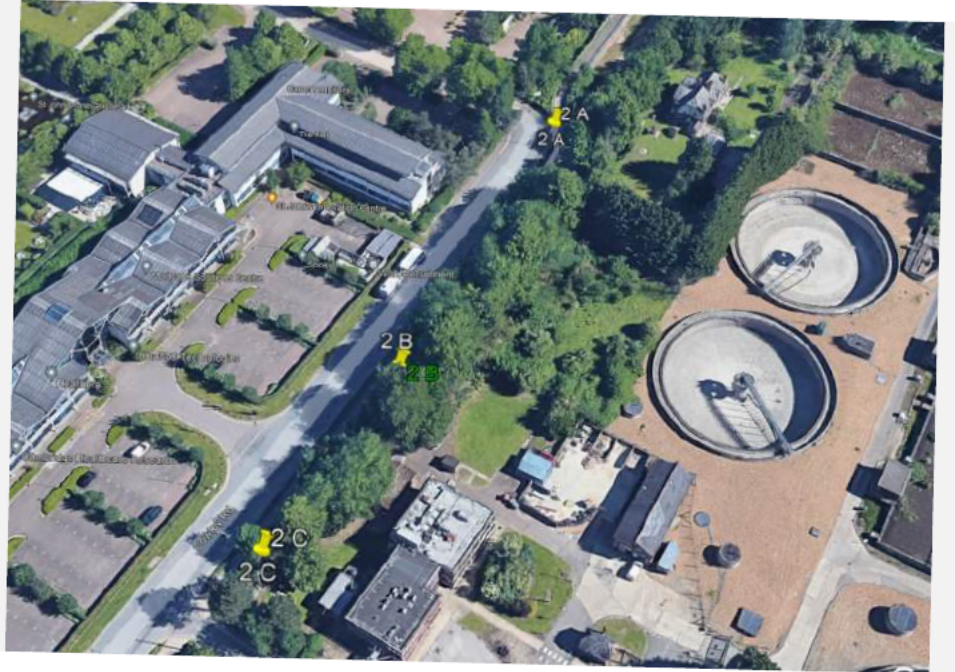




2

Latitude  
52°14'7.95"N

Longitude  
0° 9'17.99"E



3

Latitude  
52°13'58.80"N

Longitude  
0° 9'56.94"E





4

Latitude  
52°13'51.11"N

Longitude  
0° 9'49.05"E



5

Latitude  
52°13'58.71"N

Longitude  
0° 9'39.87"E





6

Latitude  
52°13'55.31"N

Longitude  
0° 9'26.21"E



7

Latitude  
52°14'22.20"N

Longitude  
0° 9'12.12"E





8

Latitude  
52°13'41.98"N

Longitude  
0°10'44.05"E



9

Latitude  
52°13'54.49"N

Longitude  
0°10'55.07"E



10

Latitude  
52°13'55.14"N

Longitude  
0°11'32.12"E





11

Latitude  
52°13'3.31"N

Longitude  
0°11'38.27"E



12

Latitude  
52°13'34.84"N

Longitude  
0°12'5.44"E





13

Latitude  
52°13'56.43"N

Longitude  
0°10'15.29"E



13.1

Latitude  
52°13'36.01"N

Longitude  
0°9'59.36"E

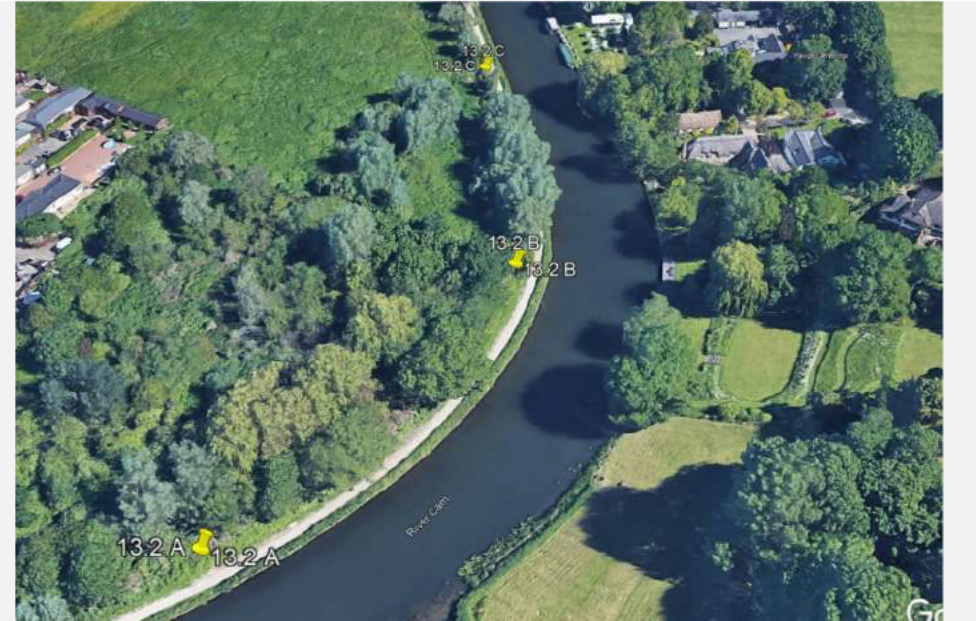




13.2

Latitude  
52°13'20.83"N

Longitude  
0° 9'58.47"E



13.3

Latitude  
52°13'13.53"N

Longitude  
0° 9'25.54"E





14

Latitude  
52°14'11.95"N

Longitude  
0°10'29.29"E



15

Latitude  
52°14'17.39"N

Longitude  
0°11'5.30"E





16

Latitude  
52°14'35.70"N

Longitude  
0°11'20.00"E



17

Latitude  
52°13'29.50"N

Longitude  
0°10'34.78"E





18

Latitude

52°13'13.64 N

Longitude

0°10'23.99 E



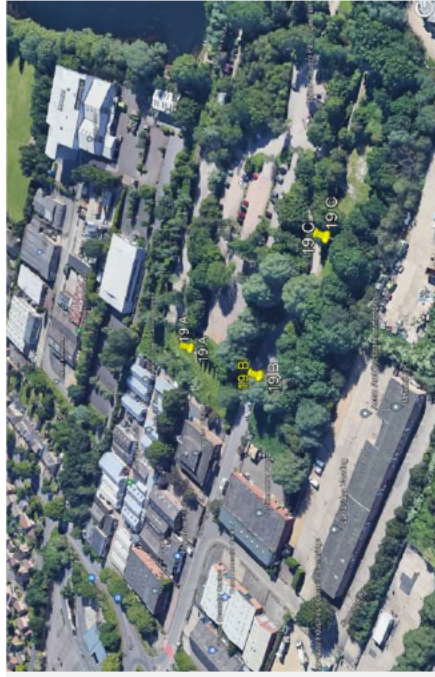
19

Latitude

52°14'15.06 N

Longitude

0°9'33.44 E





20

Latitude  
52°14'15.60"N

Longitude  
0°12'38.33"E



21

Latitude  
52°14'1.17"N

Longitude  
0°10'16.22"E





## Get in touch

You can contact us by:



Emailing at [info@cwwtpr.com](mailto:info@cwwtpr.com)




Calling our Freephone information line on **0808 196 1661**



Writing to us at **Freepost: CWWTPR**



Visiting our website at 

You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambridge-waste-water-treatment-plant-relocation/>