



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 29 <sup>th</sup> March 2018	
<b>Attendees:</b> Mr A Devine (London Borough of Hounslow) and Mr M Hussain (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks</u></b></p> <p><b>Tank 1A to 8B</b> – Tanks were all full and none were returning as no amajets were in use.</p> <p><b>Feed Channel</b> - The level of effluent in both feed channels was high – approximately 80% full and flowing.</p> <p><b><u>Complaints</u></b></p> <p><b>The Council directly received one complaint by telephone in the preceding week.</b></p> <p>On the 25<sup>th</sup> March 2018 at 15:14 a telephone complaint was received by the call centre from a resident of Beaumont Place, Isleworth, located to the Southeast side of the works. The duty officer contacted the complainant at 13:59 who advised that the odour had been bad all morning and into the early afternoon. The duty officer advised the complainant that they would make a visit and take readings. The duty officer visited the area of 25 Beaumont Place and undertook H<sub>2</sub>S readings for 10 minutes. The average H<sub>2</sub>S readings were 0.000ppm which is below the threshold level of 0.015ppm. The historic odour</p>	

monitoring trends were also inspected during the weekly inspection and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. The storm tanks for the am shift showed that effluent was present in tanks 4A and 4B, however these tanks are covered and odour controlled. The digester log from the am shift showed that no spills had occurred. It is therefore not possible on this occasion to identify the potential source of odour complained of by the resident.

**The Council directly received one complaint by email in the preceding week.**

On the 24<sup>th</sup> March 2018 at 13:48pm an email complaint was received from a resident of Nelson Road. The resident was complaining of a really bad smell over the last 10 days and has been noticeable in the front and back gardens. The resident is not located within the Borough and a letter was sent to them explaining that they would need to raise this with their Local Authority. During the weekly inspection the historic odour monitoring trends around the time of the complaint were inspected and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. Storm tanks 4B and 5A were in use at the time of the complaint, however it should be noted that storm tank 4B is covered and odour controlled. No spillages were recorded with digesters at the time of the complaint. It is not possible on this occasion it has not been possible to identify the potential source of odour complained of by the resident.

**The Council received no complaints by email from MRAG.**

***Thames Water controller advised that they had received no direct complaints in the preceding week.***

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.009	ppm	10:07
Monitor 2	0.009	ppm	10:07
Monitor 3	0.000	ppm	10:07
Monitor 4	0.000*	ppm	10:07
Monitor 5	0.008	ppm	10:07
Monitor 6	0.009	ppm	10:07
Monitor 7	0.009	ppm	10:07
Monitor 8	0.000*	ppm	10:07
Monitor 9	0.010	ppm	10:07
Monitor 10	0.009	ppm	10:07
Monitor 11	0.008	ppm	10:07
Monitor 12	0.007	ppm	10:07
Monitor 13	0.009	ppm	10:07

\* Monitor stated 'empty value' possibly indicating a fault with monitors 4 and 8 at the time of the inspection

### Odour Log (Thames) - Photocopies of log entries taken:

#### Thursday 22<sup>nd</sup> March 2018:

**AM Observations:** Odour monitor 5 spiked 0.021ppm between 05:02am to 06:00am. Odour monitor 5 spiked 0.023ppm between 14:17pm to 14:31pm (14mins). Odour monitor 8 spiked at 0.021ppm between 09:56am to 10:08am (12 mins). Odour monitor 8 spiked 0.020ppm between 12:26pm to 12:39pm (13 mins). No odour source discovered.

**Actions:** None noted.

**PM Observations:** No odour spikes. No odour problems.

**Actions:** None noted.

**Friday 23<sup>rd</sup> March 2018:**

**AM Observations:** Odour monitor 10 spiked at 0.018ppm between 09:55am to 10:55am. No source discovered.

**Actions:** None noted.

**PM Observations:** No odour issues on site. No spikes on trends.

**Actions:** None noted.

**Saturday 24<sup>th</sup> March 2018:**

**AM Observations:** Odour monitor 5 spiked at 0.016ppm between 16:32pm to 16:46pm. No other issues.

**Actions:** None noted.

**PM Observations:** Odour monitor 10 – one spike peaked at 0.018ppm between 21:25 to 21:42pm.

**Actions:** None noted.

**Sunday 25<sup>th</sup> March 2018:**

**AM Observations:** No odour spikes. No other issues.

**Actions:** No other issues

**PM Observations:** Odour monitor 10 peaked at 0.019ppm between 18:27 to 18:42. Odour monitor 4 peaked at 0.019ppm between 22:46pm to 23:19pm. Odour monitor 4 also peaked at 0.022ppm between 00:34am to 00:49am. Odour monitor 7 peaked at 0.021ppm between 21:41pm to 22:40pm. Odour detected from PAS area. Unable to identify exact source. OCU 12 running. Odour suppression units running in thickening area already.

**Actions:** None noted.

**Monday 26<sup>th</sup> March 2018:**

**AM Observations:** Odour monitor 8 spiked at 16:10pm but less than 15 minutes duration (max 0.032ppm).

**Actions:** None noted.

**PM Observations:** Odour monitor 7 peaked at 0.023 between 19:40pm and 20:38pm. Odour monitor 5 peaked at 0.018 between 19:15pm to

20:17pm and at 0.019ppm between 21:17pm to 21:32pm and at 0.026ppm between 22:47 to 23:16pm. Odour monitor 12 peaked at 0.018ppm between 01:14am and 02:14am.

**Actions:** None noted.

**Tuesday 27<sup>th</sup> March 2018:**

**AM Observations:** Trends servers failed and monitors 4 and 8 not recording.

**Actions:** Reported.

**PM Observations:** Odour monitor 5 peaked at 0.021ppm between 02:46am to 03:00am and at 0.022ppm between 00:01am to 00:14am. Odour monitor 12 peaked at 0.017ppm between 02:12am and 03:10am. Odour monitors 4 and 8 not showing on trends.

**Actions:** No source found.

**Wednesday 28<sup>th</sup> March 2018:**

**AM Observations:** Odour monitors 4 and 8 still not recording.

**Actions:** Reported.

**PM Observations:** Odour monitor 2 peaked at 0.016ppm between 17:02pm to 17:44pm. No other issues. Odour monitors 4 and 8 still dead.

**Actions:** None noted.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
23/03/18	0	2483	764	3247	10609	13856
26/03/18	0	2347	764	3111	13310	16421
28/03/18	0	2047	764	2811	12300	15111

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

\*Figures in (brackets) are the correct figures. Discrepancy on data submitted

There are no limits for the East side primary settlement tanks as these are covered and odour controlled. Thames is required by the terms of the abatement notice agreed in 2005 to notify LBH on the next working day of any such exceedance and notify LBH within three working days of any appropriate remedial measure taken within three days.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

**Digester 5** - in use – seal weak – No signs of spillages.

**Digester 6** - in use – seal weak – No signs of spillages.

**Digester 7** – in use – seal weak – No signs of spillages.

**Digester 8** – in use – seal weak – No signs of spillages.

**Digester 9** - in use – seal weak – No signs of spillages.  
**Digester 10** – in use – seal weak – No signs of spillages.  
**Digester 11** – in use – seal weak – No signs of spillages.  
**Digester 12** – in use – seal weak – No signs of spillages.  
**Digester 13** - out of use.  
**Digester 14** - out of use.  
**Digester 15** – in use – good seal – No signs of spillages.  
**Digester 16** - out of use.  
**Digester 17** - in use – good seal – No signs of spillages.  
**Digester 18** - in use – good seal – No signs of spillages.  
**Digester 19** – in use – seal weak – No signs of spillages.  
**Digester 20** - in use – seal weak – No signs of spillages.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

**GENERAL**

**Sludge Screening House**

Shutter doors closed at time of inspection - no local odours.

**Imported Sludge**

No imports for preceding seven days

### **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). Tank 71 drained down and out of service to refurbish valve.

### **Skips**

1 x 6 yd skips located at West side grit house – empty, uncovered.

### **East Side Screen House**

All doors closed.

### **Pasteurisation Plant**

The pasteurisation plant is in service and all streams are fully operational.

### **West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

### **West Side Aeration Lanes (Old)**

No issues found.

### **New Works (West Side)**

Feed Channel for Aeration Lanes was noted to be obstructed during the inspection. Rag and sludge build up from aeration lane 25 to 23 and then from 22 to 21.



All of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. It was not possible to see the divide between the tanks and there was evidence that the level had been very high. In some areas the coverage was not ‘fluffy’ but had appeared to form a crust.

**Odour Control Unit (OCU) performance monitoring – (26/03/18)**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.01 (av)	0.2	Yes
East OCU	0.05 (av)	0.05	Yes
West inlet OCU	0.01 (av)	0.05	Yes
Sludge reception outlet	0.6 (av)	0.8	Yes
Thickening plant outlet	0.02 (av)	0.6	Yes
Transfer PS outlet	0.020 (av)	0.6	Yes
New West outlet (OCU 11)	0.002 (av)	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 (av)	0.5	Yes