



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Thursday 7<sup>th</sup> of February 2019

**Attendees:** Mr L Phillips (LB Hounslow) and Mr Manzoor Hussain (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** – Tank Full Amajets not in use. No odour detected.

**Tank 1B** – Tank Full Amajets not in use. No odour detected.

**Tank 2A** – Tank Full Amajets not in use. No odour detected.

**Tank 2B** – Tank Full Amajets not in use. No odour detected.

**Tank 3A** – Tank Full Amajets not in use. No odour detected.

**Tank 3B** – Tank Full Amajets not in use. No odour detected.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank Full Amajets not in use. No odour detected.

**Tank 6B** – Tank Full Amajets not in use. No odour detected.

**Tank 7A** – Tank Full Amajets in use. No odour detected.

**Tank 7B** – Tank Full Amajets in use. No odour detected.

**Tank 8A** – Tank Full Amajets not in use. No odour detected.

**Tank 8B** – Tank Full Amajets not in use. No odour detected.

**Feed Channel** - The level of effluent in both feed channels was low – almost bottomed out – no local odours.

### **Complaints**

**The Council directly received no complaints by telephone in the preceding week.**

**The Council directly received no complaints by email in the preceding week.**

**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	12:15
Monitor 2	0.006	ppm	12:15
Monitor 3	0.005	ppm	12:17
Monitor 4	0.008	ppm	12:17
Monitor 5	0.007	ppm	12:17
Monitor 6	0.005	ppm	12:17
Monitor 7	0.010	ppm	12:17
Monitor 8	0.006	ppm	12:17

Monitor 9	0.005	ppm	12:17
Monitor 10	0.008	ppm	12:17
Monitor 11	0.007	ppm	12:17
Monitor 12	0.005	ppm	12:17
Monitor 13	0.010	ppm	12:17
Wind Speed	-	mph	12:17
Wind Direction	-		12:17

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

**Thursday 31<sup>st</sup> January 2019**

**AM**

**Temp-** Cold.

**Weather:** Sunny.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:**

om3-0.015 @08.23 - 08.38, om2 - 0.015 @08.54 - 10.22,om3 0.029 @15.53-18.00

**Operational Issues/Causes:** OM2 - imports. OM3

**Actions:** None noted.

**PM**

**Temp:** Cold.

**Weather:** Clear Night.

All OMU's in use.

**Time:** 06:00.

**Observations/Complaints:** OM13 one spike 0.017ppm.

**Operational Issues/Causes:** Spike less than 15 minutes.

No odour issues on site. Spreadsheet locked out/ No complaints received.

**Actions:** None noted.

**Friday 1<sup>st</sup> February 2019**

**AM**

**Temp:** Cold.

**Weather:** Rain.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

**PM**

**Temp:** Freezing.

**Weather:** Rain.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

### Saturday 2<sup>nd</sup> February 2019

**AM**

Temp: Cold.

**Weather:** Rain.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM4 Spiked 1648-1746, max 0.016 ppm.

**Operational Issues/Causes:** No odours found in vicinity of monitor.

**Actions:** None noted.

**PM**

**Temp:** Freezing.

**Weather:** Overcast night.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

### Sunday 3<sup>rd</sup> February 2019

**AM**

**Temp:** Cold.

**Weather:** Cloudy.

All OMU's in use.

**Time:** 17:30

**Observations/Complaints:** OM5 spiked 1220-1232 but <15mins duration max 0.026 ppm, OM5 spiked 1550-1605 max 0.026ppm, OM5 Spiked 1621-1635<15 mins duration max 0.030.

**Operational Issues/Causes:** Smell of thickened sludge in the air, noted there are a few sludge spills around PAS stream pumps. These pumps need to be repaired.

**Actions:** Reported.

**PM**

**Temp :**Cold

**Weather:** Clear night

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM3 showing 0.027 @04:10.

**Operational Issues/Causes:** Area checked all ok.

**Actions:** None noted.

#### **Monday 4<sup>th</sup> February 2019**

**AM**

**Temp:** Cool

**Weather:** Rain.

All OMU's in use.

**Time:** 17:30

**Observations/Complaints:** OM5 - 0.024 - 13.07 - 13.20.

**Operational Issues/Causes:** None noted.

**Actions:** None noted

**PM**

**Temp:** Cold.

**Freezing** – Rain.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** om3 @ 00:00- 0.03ppm. Still high @ 0600

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

#### **Tuesday 5<sup>TH</sup> February 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** none noted.

**Actions:** none noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM5 Spiked at 0255--03350 max 0.033 & OM3 Spiked 0400-0600 max 0.028ppm.

**Operational Issues/Causes:** None noted.

**Actions:** Investigated areas but no odour issues found.

**Wednesday 6<sup>th</sup> February 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** om5 - 0.033 @08.51-09.06.

**Operational Issues/Causes:** No odours found in vicinity of monitor.

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

All OMU's in use.

**Time:** 05:30

**Observations/Complaints:** OM3 Spiking at 0410-0523 max 0.024 ppm, OM 11 spiking at 0324-0423, max 0.021.

**Operational Issues/Causes:** No odours found.

**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					
01/02/19	135	1949	825	2909	1416	4325
04/02/19	322	1490	0	1812	1416	3228
05/02/19	214	2168	0	2382	2450	4832

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.

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.

### 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. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 6** - In use – weak sloppy seal no evidence of recent spill.

**Digester 7** - In use – weak sloppy seal – no evidence of recent spill

**Digester 8** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 9** - In use –weak sloppy seal – no evidence of recent spill.

**Digester 10** - In use – weak sloppy seal – no evidence of recent spill

**Digester 11** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 12** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 13** - out of use – empty and clean.

**Digester 14** - out of use – empty and clean.

**Digester 15** - out of use – empty and clean.

**Digester 16** - out of use – empty and clean.

**Digester 17** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 18** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 19** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 20** - In use – weak sloppy seal – no evidence of recent spill.

## **GENERAL**

### **Sludge Screening House**

All doors closed at time of inspection however aware that on previous visits these doors have been left open to avoid condensation build up – TW advised that doors being left open to create air flow is a Management decision to improve internal working environment for staff – odour monitors deployed in vicinity to determine whether local odours increase as a consequence.

### **Imported Sludge**

Estimated average of ten imports daily 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).

### **Skips**

No Skips present at the screening House- All clear  
1x 16yard skip at the East side grit house which was empty. No odour detected.

### **East Side Raw Sludge Screen House**

Doors closed at time of inspection.

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

Rectangular PSTs – no issues

### **Pasteurisation Plant**

Pasteurisation plant 4/7/9 currently out of service - All remaining pasteurisation plant in service and fully operational.

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

Battery C aeration feed channel approximately 25% obstructed in one channel – requires jetting. Kelvac vehicle on site at time of inspection.

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

Feed Channel for Aeration Lanes 21-24 obstructed partly however Kelvac tanker working on lane during time of inspection.

“Fluffy” coverage across surface returned across 100% of tank – thickened up so as to obscure internal dividing walls within tank.

**Odour Control Unit (OCU) performance monitoring – (06/02/19)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01 AV 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00 AV 0.01	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.04 0.04 0.04 Av 0.04	0.6	Yes
New West inlet (OCU 11)	0.01 0.01 0.01 AV 0.01	0.5	Yes

OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 AV 0.00	0.5	Yes	
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