

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Thursday 28<sup>th</sup> November 2019 (11:10).

**Attendees:** Mr L Phillips (LBH) Ms Charlotte Page (Thames Water).

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** Was empty and clean and all hoppers had been drained down to lowest point.

**Tank 1B** Was empty and clean slight grit build up at the end of the tank nearest to the hoppers. All hoppers full and required draining.

**Tank 2A** Was empty and clean all hoppers full and require draining. Slight grit build up at the end of the tank nearest the hoppers.

**Tank 2B** Was empty and clean. All hoppers full and required draining.

**Tank 3A** Tank full no odour.

**Tank 3B** Tank full no odour.

**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 no odour.

**Tank 6B** Tank full no odour.

**Tank 7A** Tank full no odour.

**Tank 7B** Tank full no odour.

**Tank 8A** Tank full no odour.

**Tank 8B** Tank full no odour.

**Amajets**- No reports of any faults with amajets. All in working order.

**Feed Channel** - The level of effluent in both feed channels was low and bottomed out in places - it was murky with some sludgy deposits visible. Most of the channel was free flowing and odourless. No local odours rags, fats or solids.

### **Complaints**

On the 28<sup>th</sup> November 2019 at 13:52 a telephone complaint was received from a resident of Mogden Lane, Isleworth, which is located to the southeast of the works. The complainant was not contacted as the complaint was passed over on the 11/12/2019. The historic odour monitoring trends were checked around the time of the complaint and showed no excessive readings on odour monitors 1 to 13.

**The Council 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	0.007	ppm	11:10
Monitor 2	0.006	ppm	11:10
Monitor 3	0.000	ppm	11:10
Monitor 4	0.005	ppm	11:10
Monitor 5	0.009	ppm	11:10
Monitor 6	0.005	ppm	11:10
Monitor 7	0.005	ppm	11:11
Monitor 8	0.010	ppm	11:11
Monitor 9	0.004	ppm	11:12
Monitor 10	0.005	ppm	11:12
Monitor 11	0.000	ppm	11:12
Monitor 12	0.006	ppm	11:12
Monitor 13	0.005	ppm	11:12
Wind Speed	No data	mph	11:12
Wind Direction	No data	Deg	11:12

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

**Thursday 21<sup>st</sup> November 2019**

**AM**

**Temp:** Cold.

**Weather:** Cloudy W/ sunny spells.

**All OMU's in use.**

**Time:** 17:30.

**Observations/Complaints:** No odour issues found or reported.

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

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

**All OMU's in use.**

**Time:** 05:30.

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

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

**Actions:** None noted.

**Friday 22<sup>nd</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Rain W/ Sunny spells.

**All OMU's in use.**

**Time:** 07:12.

**Observations/Complaints:** No odour issues found or reported no spike on trends.

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

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

**All OMU's in use.**

**Time:** 05:30.

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

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

**Actions:** None noted.

**Saturday 23<sup>rd</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy W sunny spells.

**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:** Overcast night.

**All OMU's in use.**

**Time:** 05:30.

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

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

**Actions:** None noted.

**Sunday 24<sup>th</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Rain.

**All OMU's in use.**

**Time:** 17:30.

**Observations/Complaints:** OM2 spiked at 08:40 - 09:00 max 0.052ppm.

**Operational Issues/Causes:** East inlet checked no obvious signs of cause hosed down area best practice.

**Actions:** None Noted.

**PM**

**Temp:** Cool.

**Weather:** Overnight.

**All OMU's in use.**

**Time:** 05:30.

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

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

**Actions:** None noted.

**Monday 25<sup>th</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Rain W/ Sunny spells.

**All OMU's in use.**

**Time:** 17:20

**Observations/Complaints.** OM2 0.032ppm 07:54 - 08:14.

**Operational Issues/Causes:** Area checked no source found no Scada trends between 09:00 - 14:00.

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

**All OMU's in use.**

**Time:** 05:30.

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

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

**Actions:** None noted.

**Tuesday 26<sup>th</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy W/ sunny spells.

**All OMU's in use.**

**Time:** 17:20.

**Observations/Complaints:** OM2 0.020ppm 7:03 - 07:17 15 minutes.

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

**Actions:** none noted.

**PM**

**Temp:** Cool.

**Weather:** Overcast Night.

**All OMU's in use.**

**Time:** 05:30.

**Observations/Complaints:** OM2 spiked at 22:04 - 22:17 15 minutes duration max 0.015ppm.

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

**Actions:** None noted.

**Wednesday 27<sup>th</sup> November 2019**

**AM**

**Temp:** Cool.

**Weather:** Rain W/ Sunny spells.

**All OMU's in use.**

**Time:** 17:30.

**Observations/Complaints:**

OM2 0.021 16:54 - 17:12.

**Operational Issues/Causes:** Area checked no source found.

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Rain.

**All OMU's in use:**

**Time:** 05:30.

**Observations/Complaints:** No odour issues found or reported no spikes on trends.

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

**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					
22/11/19	39	1200	328	1567	3225	4792
25/11/19	0	473	389	862	4042	4904
27/11/19	78	661	473	1212	2889	4101

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 seal no evidence of spillage.

**Digester 6** - in use - weak seal no evidence of spillage.



<p><b>Digester 7</b> - Out of service.</p> <p><b>Digester 8</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 9</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 10</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 11</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 12</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 13</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 14</b> - out of service.</p> <p><b>Digester 15</b> - out of service.</p> <p><b>Digester 16</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 17</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 18</b> - out of service.</p> <p><b>Digester 19</b> - in use - weak seal no evidence of spillage.</p> <p><b>Digester 20</b> - in use - weak seal no evidence of spillage.</p> <p>No odour in the area observed at times of inspection.</p>	
<p><b><u>GENERAL</u></b></p> <p><b><u>Sludge Screening House</u></b></p>	

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. No odours observed.

### **Imported Sludge**

Estimated average of 13 imports per day (high imports due to Chertsey SWT shutdown).

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

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). All jets and hoses were in operation and no excessive build-up of algae.

### **Skips**

No Skips present at the East side screening House- All clear.

Eastside Grit House had 2 x 16 yard skips full with general waste and covered tarpaulin.  
2 x Bulk carrier closed.

No Skips present at the West Side gritting house. - All clear.  
No odour detected.

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

Doors closed at time of inspection.

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

Rectangular PSTs – Circular PST 9 out of service during time of inspection. PST'S 10, 11 and 12 were in use and all hoses were in operation. No Odours observed.

**Pasteurisation Plant**

All pasteurisation streams (10) in service fully operational.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel approximately 100% clear of any obstruction- effluent is flowing with ease, NO rags or build up noticed.

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours. Thames Water advised that the contractor Celvac now only attends intermittently or when needed.

The “Fluffy” coverage (obscured internal dividing walls within tank) that had been observed on previous visits had lightened in texture revealing the dividing walls within the tank. There were no concerning odours around this area.

**Odour Control Unit (OCU) Performance Monitoring – (26<sup>th</sup> November 2019)**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	0.01 0.01 0.01 <b>Ave: 0.01</b>	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.2	Yes
East OCU	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.05	Yes
West inlet OCU	0.00 0.00 0.00 <b>Ave: 0.00</b>	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 <b>Ave: 0.00</b>	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.6	Yes
New West inlet (OCU 11)	0.00	0.5	Yes

	0.00 0.00 <b>Ave: 0.00</b>			
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.5	Yes	