



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Monday 16 <sup>th</sup> December 2019 (12:15pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Palmer (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Weather</u></b></p> <p>Recent heavy rain meant the site was near to full capacity.</p> <p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 1B</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 2A</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 2B</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 3A</b> was completely full. No Amajets were in operation.</p>	

**Tank 3B** was completely full.  
No Amajets were in operation.

**Tanks 4A, 4B, 5A & 5B** All tanks are covered and odour controlled.  
Unable to gauge condition as lighting system still not working.

**Tank 6A** was completely full.  
No Amajets were in operation.

**Tank 6B** was completely full.  
No Amajets were in operation.

**Tank 7A** was completely full.  
No Amajets were in operation.

**Tank 7B** was completely full.  
No Amajets were in operation.

**Tank 8A** was completely full.  
No Amajets were in operation.

**Tank 8B** was completely full.  
No Amajets were in operation.

**Storm Feed Channel** - The channel was >50% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

They are still also awaiting parts in order to bring the wash water pump system back into operation.

### **Complaints**

The Council has received no 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: Thursday 14<sup>th</sup> November 2019 at 12:30.

Monitor 1	0.007	ppm	12:30
Monitor 2	0.007	ppm	12:30
Monitor 3	0.000	ppm	12:30
Monitor 4	0.004	ppm	12:30
Monitor 5	0.009	ppm	12:30
Monitor 6	0.008	ppm	12:30
Monitor 7	0.008	ppm	12:30
Monitor 8	0.007	ppm	12:30
Monitor 9	0.006	ppm	12:30
Monitor 10	0.007	ppm	12:30
Monitor 11	0.000	ppm	12:30
Monitor 12	0.007	ppm	12:30
Monitor 13	0.007	ppm	12:30
Wind Speed	0.276	mph	12:30
Wind Direction	277.083	°	12:30

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

#### **Thursday 5<sup>th</sup> December 2019**

##### **DAY SHIFT**

**Temp.** Cold.

**Weather.** Cloudy.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

##### **NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.  
**Actions Taken.** Blank.

**Friday 6<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour spikes.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in use.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Saturday 7<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Cloudy.

**Odour Readings.** All OMU's in operation.

**Time:** 17:20.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.  
**Actions taken.** Blank.

**Sunday 8<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Cloudy w/sunny spells.

**Odour Readings.** All OMU's in operation.

**Time:** 17:20.

**Observations / Customer Complaint.** No odours

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint.** Blank.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Monday 9<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint.** Blank.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Tuesday 10<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint.** Blank.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Wednesday 11<sup>th</sup> December 2019**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM2 0.022ppm at 08:04-08:20.

**Operational issues / causes observed.** Area checked no odour detected.

**Action Taken.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

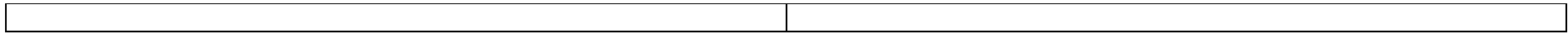
**Odour Readings.** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint.** Blank.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.



### **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					
08/12/2019	127	1635	328	2090	3706	5798
11/12/2019	128	1533	661	2322	4897	7219

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.

### **Imported Sludge**

There have been 77 imports of sludge over the last week (11 per day).

### **No.5 Pumping Station**

The doors of No.5 pumping station was open at the time of the inspection although no odour was evident.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

### **Digesters**

**Digesters 1-4** Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will



require significant investment.

**Digesters 5 & 6:** Both were in service and had totally wet seals that were bubbling off small amounts of gas.

**Digester 7:** Out of service.

**Digester 8-12:** All were in service and had totally wet seals that were bubbling off small amounts of gas.

**Digester 13:** In service and had a very high wet seal level (just below the retaining coping stones) and was bubbling off gas.

**Digesters 14 & 15:** Both were out of service.

**Digester 16:** In service and a very large spill had occurred that required cleaning.

**Digester 17:** Was in service and had a totally wet seal that was bubbling off gas.

**Digester 18:** Was in service and had a good dry seal.

**Digesters 19 & 20:** Both were in service and had totally wet seals that were bubbling off gas.

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**

### **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 tanks were operational at the time of the inspection and no issues were evident.

### **Skips**

On the East side there were two 8yds open skips, one of which contained general non-inert rubbish and one was approx 30% full of rag, which was only part covered with a tarpaulin and had weeds growing out of it.

Also present was one closed 14yds skip that was empty.

In the area next to STW 1A there was an open 14yds skip that contained scrap metal pumps.

On the service road next to raw sludge screening building was an 8yds open skip that contained rag and other waste, which was part covered with a tarpaulin.

On the West side there was one 20yds open bulk carrier that was empty.

### **East Side Screen House**

The doors to the screen house building were closed at the time of the inspection. However, TW were unable to confirm how many or which screens were in operation?

### **Return Activated Sludge Channel**

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along 75% of the near-side channel.

TW were advised this needed to be rectified to avoid potential insect and odour problems.

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

No issues.

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

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PST 9 was in service and had fat across 20% of the surface in front of the sweep arm.

Circular PST 10 was out of service and outer overflow channel was being over pumped at the time of the inspection.

Circular PST's 11 & 12 had clean fat free surfaces.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised all 10 streams were in service.

### **Section 106 agreement**

There have been no breaches of the s106 agreement in the last week.

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

All of the aeration tanks were much improved. The tops of the internal dividing walls were clearly visible and liquid inside the tanks appeared free flowing.

Nearly all of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving E-Battery was clear of debris and free flowing along its entire length.

TW advised a tanker crew is regularly on site undertaking clearance of any clogged areas.

**New Inlet Works (West Side)**

No issues.

**Odour Control Unit (OCU) performance monitoring: 10/11/2019**

<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	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.01 0.02 0.01	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.01 0.01 0.01	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes