



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 19 <sup>th</sup> October 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Neil Bristow (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – 75% of tank covered by grit and sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 60% full, Hopper 2 approx. 10% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 60% full, Hopper 2 approx. 30% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> - Tank empty – 30% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – 50% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 40% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 30% full – requires draining/over-pumping.</p>	

**Tank 3B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

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

**Tank 6A** – Tank empty and flushed clean – All Hoppers full – requires draining/over-pumping.

**Tank 6B** – Tank empty – 80% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 50% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – 75% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 7B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 8A** – Tank backfilling and approx. 90% of surface of tank covered by effluent water.

**Tank 8B** – Tank backfilling and approx. 75% of surface of tank covered by effluent water.

**Feed Channel** - The level of effluent in both feed channels was approximately 10% capacity - 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 monitors which were providing data at time of inspection:

Monitor 1	.000	ppm	13:11
Monitor 2	.001	ppm	13:11
Monitor 3	.000	ppm	13:11
Monitor 4	.000	ppm	13:11
Monitor 5	.004	ppm	13:11
Monitor 6	.003	ppm	13:11
Monitor 7	.003	ppm	13:11
Monitor 8	.004	ppm	13:11
Monitor 9	.000	ppm	13:11
Monitor 10	.000	ppm	13:11
Monitor 11	.000	ppm	13:11
Monitor 12	.000	ppm	13:11
Monitor 13	.000	ppm	13:11
Wind Speed	7.5	mph	13:11
Wind Direction	210°		13:11

**Odour Log (Thames):**

**Wednesday 13<sup>th</sup> October 2021:**

**AM** – Warm – Sunny with patch Clouds.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 14<sup>th</sup> October 2021:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 15<sup>th</sup> October 2021:**

**AM** – Warm – Sunny with patchy Clouds.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM3 0.015ppm 00:36-00:50."

**Operational Issues/Causes:** "No odour issues on site."

**Actions:** No data.

**Saturday 16<sup>th</sup> October 2021:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.

**Sunday 17<sup>th</sup> October 2021:**

**AM** – Cloudy – With Sunny Spells.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 0.015ppm <15 minutes."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 18<sup>th</sup> October 2021:**

**AM** – Cool – Patchy Rain.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Patchy Rain.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 19<sup>th</sup> October 2021:**

**AM** – Cool – Cloudy.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

### 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>					
<b>OMP limit</b>	<b>500</b>					
13/10/21	0	885	885	1770	1761	3531
15/10/21	0	885	885	1770	1425	3195
18/10/21	0	1030	885	1915	1568	3483

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** – Out of use.

**Digester 6** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 9** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**Digester 10** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 12** - In use – seal level approx. 6ft below coping stones – good seal.

**Digester 13** - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 18** – Out of use.

**Digester 19** – In use – seal level approx. 6ft below coping stones – good seal.

**Digester 20** - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.



## **GENERAL**

### **Sludge Screening House**

All doors open at the time of inspection.

### **Imported Sludge**

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**

1x open container grit skip (50 % full) uncovered, 1x enclosed container skip (empty), 2x 8-yard General Waste skip (uncovered).

2 x 6-yard covered rag skips (50% full) & 1x 6-yard General Waste skip at rear of Pasteurisation Plant (covered).

1x enclosed container skip (50% full) in Service Road at rear of Sludge Screen House.

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

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

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

Battery C aeration feed channel 100% obstructed in one channel (left)

– requires jetting (TW advise that there is continuing flow below surface).

### **Pasteurisation Plant**

Eight streams running.

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

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

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

Feed Channel for Aeration Lanes – recently jetted and all Lanes clear.  
Tank performance progressively improving.

### **Odour Control Unit (OCU) performance monitoring – No data**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	No data	0.05	Unknown
West inlet OCU	No data	0.05	Unknown
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown
Transfer PS inlet	No data	Unknown	Unknown

Transfer PS outlet	No data	0.5	Unknown
New West inlet (OCU11)	No data	0.5	Unknown
Pasteurisation Plant (OCU12)	No data	0.5	Unknown
GBT Plant OCU Outlet	No data	Unknown	Unknown