



**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** 19<sup>th</sup> September 2019

**Attendees:** Mr Steven Maunders and Mr Tom Costin and Ms Charlotte Page (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 - approximately 10% of tank covered by dried grit and sludge – requires flushing/hosing to remove – Hoppers 1, 2 &amp; 3 drained down to bottom.</p> <p><b>Tank 1B</b> – Tank empty - approximately 20% of tank covered by dried grit – requires further flushing – Hopper 1 approx. 40% full, Hoppers 2 &amp; 3 approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 20% of tank covered by dried grit – requires further flushing Hoppers 1, 2 &amp; 3 approx. 20% full - requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty - approximately 20% of tank covered by dried grit/sludge – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 60% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty and flushed clean - Hoppers 1, 2 &amp; 3 approx. 40% full – requires draining/over-pumping.</p> <p><b>Tank 3B</b> – Tank empty - approximately 50% of tank covered by dried</p>	

grit/sludge – requires further flushing – Hopper 1 approx.40% full. Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.

**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 empty and flushed clean - Hoppers 1, 2 & 3 approximately 15% full - requires draining/over-pumping.

**Tank 6B** – Tank empty - approximately 20% of tank covered by dried grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 25% full - requires draining/over-pumping.

**Tank 7A** – Tank empty – approx. 60% of tank covered by dried grit and sludge – requires further flushing/hosing to remove – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

**Tank 7B** – Tank empty – approx. 80% of tank covered by dried grit and sludge – requires further flushing/hosing to remove – Hoppers 1, 2 & 3 drained down to bottom.

**Tank 8A** – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 60% full – requires draining/over-pumping.

**Tank 8B** – Tank empty – approx. 15% of tank covered by dried grit and sludge – requires further flushing/hosing to remove – Hoppers 1, 2 & 3 approximately 75% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was low – 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	0.004	ppm	13:07
Monitor 2	0.005	ppm	13:07
Monitor 3	0.000	ppm	13:07
Monitor 4	0.005	ppm	13:07
Monitor 5	0.004	ppm	13:07
Monitor 6	0.006	ppm	13:07
Monitor 7	0.005	ppm	13:07
Monitor 8	0.004	ppm	13:07
Monitor 9	0.004	ppm	13:07
Monitor 10	0.000	ppm	13:07
Monitor 11	0.000	ppm	13:07
Monitor 12	0.005	ppm	13:07
Monitor 13	0.000	ppm	13:07
Wind Speed	0.2	mph	
Wind Direction	70°		

**Odour Log (Thames):**

**Thursday 12<sup>th</sup> September:**

**AM** – Warm – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Warm – Overcast Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Friday 13<sup>th</sup> September:**

**AM** – Hot – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Saturday 14<sup>th</sup> September:**

**AM** – Warm – Sunny.

All OMU's in use.

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

**Operational Issues/Causes:** None noted,"

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM2 0.015 4 spikes from 20:41 to 23:25."

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

**Actions:** None noted.

**Sunday 15<sup>th</sup> September:**

**AM** – Warm – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** –Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** None noted

**Actions:** None noted

**Monday 16<sup>th</sup> September 2019:**

**AM** – Cool – Rain with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "OM3 one spike 0.016ppm < 15 minutes duration."

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

**Actions:** None noted

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Tuesday 17<sup>th</sup> September 2019:**

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

All OMU's in use.

**Observations/Complaints:** "No odour issues. Nothing of note on trends."

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

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Wednesday 18<sup>th</sup> September 2019:**

**AM** – Warm – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.021 @ 04:13 – 14:42."

**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					
13/09/19	0	0	244	244	608	852
16/09/19	0	0	244	244	1088	1332
18/09/19	0	183	412	595	304	899

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 – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 6** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 7** – Out of use – empty and clean – contractor on site undertaking maintenance.

**Digester 8** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 9** - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

**Digester 10** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 2ft below surface of coping stones – seal weak and bubbling.

**Digester 12** - In use – seal level approx. 1ft below coping stones – good seal.

**Digester 13** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

**Digester 14** – Out of use – empty and clean – contractor on site undertaking maintenance.

**Digester 15** - Out of use – empty and clean – contractor on site undertaking maintenance.

**Digester 16** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 17** - In use – seal level approx. 2t below coping stones - seal weak and bubbling.

**Digester 18** - Out of use – empty and clean – contractor on site undertaking maintenance

**Digester 19** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 20** - In use – seal level approx. 4ft below coping stones – good seal.



**GENERAL**

**Sludge Screening House**

All doors closed at time of inspection.

**Imported Sludge**

Approx. 8 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). Green Algae on 100% of surface of Tank 74.

**Skips**

1x large open general waste skip, & 1x (8 yard) open skip (containing rag covered with tarpaulin) & 1x covered skip (8 yard) located in Service Road by Storm Water Tanks.

1x partially filled small grit slips by Sludge Screening House.

**Pasteurisation Plant**

Pasteurisation plant 8, 9 & 10 currently out of service.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel approximately 75% obstructed in one channel – requires jetting.

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

Rectangular PSTs – no issues  
 Circular PST's 9, & 11 in use. Tanks 10 & 12 drained and out of use.

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 completely clear.

“Fluffy” coverage across surface broken down completely since previous visit – visible churn across entirety of tank. Quantity of sanitary items by-passing screener reduced significantly.

**Odour Control Unit (OCU) performance monitoring – (19/09/19)**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	0.00 0.00 0.00	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	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	0.00 0.00 0.00	Unknown	Unknown

Sludge reception outlet	0.00 0.00 0.00	0.8	Yes	
Thickening plant inlet	No data	Unknown	Unknown	
Thickening plant outlet	No data	0.6	Yes	
Transfer PS inlet	0.125ppm 0.128ppm 0.140ppm	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	
New West inlet (OCU 11)	2.14ppb (0.00214ppm) 4,.27ppb (0.00427ppm) 3.5ppb (0.0035ppm)	0.5	Yes	
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000	0.5	Yes	