



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 22 <sup>nd</sup> July 2020	
<b>Attendees:</b> Mr Steven Maunders and Miss 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 grit/sludge – requires further flushing – Hopper 1 approx. 60% full, Hopper 2 empty &amp; Hopper 3 approx. 40% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 50% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 30% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 40% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 &amp; 3 empty.</p> <p><b>Tank 3A</b> – Tank empty – approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 &amp; 3 empty.</p> <p><b>Tank 3B</b> – Tank empty – approximately 60% of tank covered by</p>	

grit/sludge – requires further flushing – Hoppers 1, 2 & 3 empty.

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

**Tank 6B** – Tank empty – approximately 35% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 20% full - requires draining/over-pumping.

**Tank 7A** - Tank empty – recently returned 75% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 empty.

**Tank 7B** – Tank empty – recently returned – 100% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 empty.

**Tank 8A** – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

**Tank 8B** – Tank empty – approximately 25% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 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 monitors which were providing data at time of inspection (OMU 1 & 2 Out of Service – Testing ongoing):

Monitor 1	Out of Service		12:15
Monitor 2	Out of Service		12:15
Monitor 3	000	ppm	12:15
Monitor 4	000	ppm	12:15
Monitor 5	000	ppm	12:15
Monitor 6	004	ppm	12:15
Monitor 7	003	ppm	12:15
Monitor 8	000	ppm	12:15
Monitor 9	000	ppm	12:15
Monitor 10	003	ppm	12:15
Monitor 11	000	ppm	12:15
Monitor 12	003	ppm	12:15
Monitor 13	000	ppm	12:15
Wind Speed	7.54	mph	12:15
Wind Direction	222°		

**Odour Log (Thames):**

**Thursday 16<sup>th</sup> July 2020:**

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

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 19<sup>th</sup> June 2020:**

**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:** "OM2 spiked at 05:24-06:00 max 0.035ppm".

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

**Actions:** None noted.

**Saturday 18<sup>th</sup> July 2020:**

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

All OMU's in use.

**Observations/Complaints:** "OM3 – 0.042 @ 09:07 – 09:22".

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

**Actions:** None noted.

**PM** – Warm – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM3 spiked at 18:35 – 18:50 max 0.020ppm & at 23:00 – 23:23 max 0.019ppm".

**Operational Issues/Causes:** "OM Nos 1, 2 and 4 not trending again".

**Actions:** "Reported defective Oms".

**Sunday 19<sup>th</sup> July 2020:**

**AM** – Warm – Overcast Night (?!).

All OMU's in use.

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

**Operational Issues/Causes:** "OM Nos 1, 2 and 4 not trending again".

**Actions:** None noted.

**PM** – Hot – Sunny (?!).

All OMU's in use.

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

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

**Actions:** None noted.

**Monday 20<sup>th</sup> July 2020:**

**AM** – Cool – Clear Night (?!).

All OMU's in use.

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

**Operational Issues/Causes:** "OM No's 1, 2 and 4 not trending".

**Actions:** None noted.

**PM** – Hot – Sunny (?!).

All OMU's in use.

**Observations/Complaints:** "OM2 spiked from 14:00 till 15:00 0.05ppm".

**Operational Issues/Causes:** "Inlets checked nothing of note found or obvious odours. Pad washed down Jeyes Fluid put on pad".

**Actions:** None noted.

**Tuesday 21<sup>st</sup> July 2020:**

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

All OMU's in use.

**Observations/Complaints:** None noted.

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

**Actions:** None noted.

**PM** – Cool – Sunny with Patchy Clouds (?!).

All OMU's in use.

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

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

**Actions:** None noted.

**Wednesday 22<sup>nd</sup> July 2020:**

**AM** – Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** None noted.

**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.

### 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					
17/07/20	39	267	473 (TW = 273)	779	1920	2699 (TW = 2499)
20/07/20	39	328	389	756	1920	2676 (TW = 12676)
22/07/20	80	679	389	1148	3563	4711

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. 2ft below coping stones – good seal.

**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. 4ft 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. 1ft below coping stones – seal weak and bubbling.

**Digester 12** – Out of use – empty and clean – contractor on site undertaking maintenance.

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

**Digester 14.** - In use – seal level approx. 6” below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

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

**Digester 16.** - Out of use – empty and clean – contractor on site undertaking maintenance.

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

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

**Digester 19** - Out of use – empty and clean – contractor on site



undertaking maintenance.

**Digester 20** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**GENERAL**

**Sludge Screening House**

Roller shutter door approx. 1ft open - All other doors open at time of inspection – contractors on site working on screens.

**Imported Sludge**

An average of six imports reported 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**

2x partially filled small grit skip & 1x minis skip containing general waste by Sludge Screening House.

1x open container skip containing general waste in Service Road at rear of Raw Sludge Screen House.

1x empty open container skip by West Side PST's.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

**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**

Pasteurisation plant = 9 streams running.

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

Rectangular PSTs – no issues.

Circular PST's All in use.

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 approximately 75% blocked – required jetting.

“Fluffy” coverage across surface has again begun to build up significantly, also quantity of material bypassing screener.

**Odour Control Unit (OCU) performance monitoring – 22/07/20**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	3.02 0.00	0.05	No

	0.00			
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	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	0.00 0.00 0.00	0.5	Yes	
New West inlet (OCU 11)	5.28 4.57 4.45	0.5	No	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	