



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 7 <sup>th</sup> April 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Dan Grady (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 5% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 50% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 75% of tank covered by grit and dried sludge – requires further flushing – Hopper 1 approx. 25% full, Hopper 2 approx. 80% full and Hopper 3 100% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 75% of tank covered by grit and dried sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 80% full, Hopper 2 approx. 90% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers approx. 75% full – requires draining/over-pumping.</p>	

**Tank 3B** – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 100% 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 approx. 90% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Tank 6B** – Tank empty – approximately 50% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 7B** – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 8A** – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Tank 8B** – Tank approx. 40% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 25% 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	.004	ppm	13:23
Monitor 2	.000	ppm	13:23
Monitor 3	.000	ppm	13:23
Monitor 4	.000	ppm	13:23
Monitor 5	.005	ppm	13:23
Monitor 6	.000	ppm	13:23
Monitor 7	.005	ppm	13:23
Monitor 8	.003	ppm	13:23
Monitor 9	.004	ppm	13:23
Monitor 10	.000	ppm	13:23
Monitor 11	.004	ppm	13:23
Monitor 12	.006	ppm	13:23
Monitor 13	.000	ppm	13:23
Wind Speed	8.1	mph	13:23
Wind Direction	300°		13:23

**Odour Log (Thames):**

**Wednesday 31<sup>st</sup> March 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked to max 0.025ppm 07:48-

08:34. OM8 spiked to max 0.019ppm 08:07-09:04.”

**Operational Issues/Causes:** “No obvious odours found.”

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU’s in use.

**Observations/Complaints:** “OM5 0.048 @ 20:49-22:20, OM3 0.038 @ 22:02-22:17, OM3 0.023 @ 22:33-23:02, OM5 0.015 @ 23:20-00:18, OM5 0.042 @ 00:34-01:19, OM5 0.038 @ 01:35-02:04, OM7 0.017 @ 21:48-22:02, OM8 0.022 @ 22:07-22:22, OM12 0.055 @ 00:06-00:37, OM8 0.033 @ 00:35-01:05, OM9 0.021 @ 01:49-02:18.”

**Operational Issues/Causes:** “OM3 aeration units on E Battery, OM5 site drains, OM7 & 89 & 12 PAS area, OM9 Digester area.”

**Actions:** No data.

**Thursday 1<sup>st</sup> April 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU’s in use.

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

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

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU’s in use.

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

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

**Actions:** No data.

**Friday 2<sup>nd</sup> April 2021:**

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

All OMU’s in use.

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

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

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU’s in use.

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

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

**Actions:** No data.

**Saturday 3<sup>rd</sup> April 2021:**

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

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

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

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

**Actions:** No data.

**Sunday 4<sup>th</sup> April 2021:**

**AM** – Warm - Sunny.

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

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

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

**Actions:** No data.

**Monday 5<sup>th</sup> April 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** "PST11 and Storm Tanks."

**Actions:** No data.

**PM** – Cool – Overcast Night.

OMU 4 out of service - All other OMU's in use.

**Observations/Complaints:** "OM5 spiked to max 0.027ppm at 22:00."

**Operational Issues/Causes:** "Some odour from sewer drain cover on Main Drive."

**Actions:** No data.

**Tuesday 6<sup>th</sup> April 2021:**

**AM** – Cold – Sunny with Patch Clouds.

All OMU's in use.

**Observations/Complaints:** "OM5 0.021ppm @ 16:19-16:33."

**Operational Issues/Causes:** "Odour from vent on Main Drive. PST11 back pumping but Tank still odorous."

**Actions:** No data.

**PM** – Cold – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM8 0.024ppm <15 minute duration."

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

**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>					
OMP limit	500					
31/03/21	0	389	1575	1964	2722	4686
02/04/21	0	1696	1865	3561	2602	6163
05/04/21	0	1134	2010	3144	3418	6562

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. 6ft below coping stones - seal weak and bubbling.

**Digester 6** – Out of use.

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

**Digester 8** - In use – seal level approx. 5ft 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. 5ft 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 - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 14.** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 7ft below coping stones – seal weak and bubbling.

**GENERAL**



**Sludge Screening House**

Doors open at the time of inspection – contractors on site working on screens.

**Imported Sludge**

No 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 large open grit skip (empty), 1x 8 yard grit/rag skip (covered with tarpaulin) & 1x 8 yard general waste in Service Road at rear of Sludge Screen House.

**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).

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

Rectangular PSTs – no issues

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

**Pasteurisation Plant**

Eight streams running.

**New Works (West Side)**

Feed Channel for Aeration Lanes 100% obstructed – requires jetting.  
Large thick crust evident across majority of tank.

**Odour Control Unit (OCU) performance monitoring – 06/04/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	51.61 53.78 49.10	0.05	No
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	1.198 1.187 1.156	0.6	No
Transfer PS inlet	1.118 1.113 1.114	Unknown	Unknown

Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.801 0.671 0.511	0.5	No