



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 13 <sup>th</sup> January 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Tom Costin (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 &amp; 3 approx. 90% full, Hopper 2 approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 15% of tank covered by grit – requires further flushing – Hopper 1 approx. 75% full, Hoppers 2 &amp; 3 approx. 25% full – requires draining/over-pumping</p> <p><b>Tank 2B</b> – Tank empty and flushed clean – Hoppers 1 &amp; 3 approx. 60% full, Hopper 2 approx. 40% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – recently returned – approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 80% full, Hopper 2 approx. 40% full – requires draining/over-pumping.</p>	

**Tank 3B** – Tank empty – recently returned – approximately 40% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 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 full.

**Tank 6B** – Tank full.

**Tank 7A** – Tank full – in process of being returned – All Amajets in use.

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

**Tank 8A** – Tank empty – recently returned – approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

**Tank 8B** – Tank empty – recently returned – approximately 75% of tank covered by 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 approximately 30% 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	14:10
Monitor 2	.003	ppm	14:10
Monitor 3	.000	ppm	14:10
Monitor 4	.005	ppm	14:10
Monitor 5	.004	ppm	14:10
Monitor 6	.003	ppm	14:10
Monitor 7	.003	ppm	14:10
Monitor 8	.010	ppm	14:10
Monitor 9	.000	ppm	14:10
Monitor 10	.000	ppm	14:10
Monitor 11	.000	ppm	14:10
Monitor 12	.000	ppm	14:10
Monitor 13	.000	ppm	14:10
Wind Speed	7.7	mph	14:10
Wind Direction	257°		14:10

**Odour Log (Thames):**

**Wednesday 6<sup>th</sup> January 2021:**

**AM** – Cold and Sunny with patch clouds.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Freezing - Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Thursday 7<sup>th</sup> January 2021:**

**AM** – Cold and Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM8 0.019ppm 06:13-06:30, 0.019ppm 10:14-10:30."

**Operational Issues/Causes:** "Odour detected from around PAS area. Unable to identify exact source of odour. Multiple sludge imports and tanker jetting operations taking place."

**Actions:** None noted.

**PM** – Freezing – Clear night.

All OMU's in use.

**Observations/Complaints:** "OM8 0.015ppm for less than 15 mins."

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

**Actions:** None noted.

**Friday 8<sup>th</sup> January 2021:**

**AM** – Cold and Cloudy.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cold – Overcast night.

All OMU's in use.

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

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

**Actions:** None noted.

**Saturday 9<sup>th</sup> January 2021:**

**AM** – Freezing - Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM5 one spike 0.016ppm <15 minute duration."

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

**Actions:** None noted.

**PM** – Freezing - Overcast Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Sunday 10<sup>th</sup> January 2021:**

**AM** – Freezing - Cloudy.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cold - Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Monday 11<sup>th</sup> January 2021:**

**AM** – Cold and Cloudy.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cool with Rain.

All OMU's in use.

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

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

**Actions:** None noted.

**Tuesday 12<sup>th</sup> January 2021:**

**AM** – Cool and Sunny with patchy clouds.

All OMU's in use.

**Observations/Complaints:** "OM8 @ 05:45 – 06:40 Max 0.022."

**Operational Issues/Causes:** "Smell coming from PAS area."

**Actions:** "Area checked."

**PM** – Cold – 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					
06/01/21	0	679	740	1419	1568	2987
08/01/21	0	1012	740	1752	1240	2992
11/01/21	0	867	885	1752	1568	3320

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. 18” below coping stones – good seal.

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

**Digester 7** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 8** – In use – seal level approx. 4ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 9** – In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 10** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling vigorously – Bell height high requiring draw down of Biogas.

**Digester 11** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 12** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**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 – ongoing spill requiring anti-foam and clean-up

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 2ft 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. 4ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 4ft 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**

Average of fourteen (14) 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 enclosed container skip (empty) and 1x large open skip (empty) 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)**

<p>Rectangular PSTs – no issues</p> <p>Circular PST's 9, 10 &amp; 12 in use, Number 11 drained down.</p> <p><b><u>Pasteurisation Plant</u></b></p> <p>Ten streams running.</p> <p><b><u>New Works (West Side)</u></b></p> <p>Feed Channel for Aeration Lanes completely obstructed – requires jetting.</p>	

**Odour Control Unit (OCU) performance monitoring – 12/01/21**

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	0.118 0.118 0.009	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	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	1.132 1.128 1,124	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	1.89 1.76 1.71	0.5	No
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes