



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 24 <sup>th</sup> June 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. 40% full – requires draining/over-pumping, Hopper 2 empty &amp; Hopper 3 approx. 60% 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 10% of tank covered by grit – requires further flushing – Hoppers 1 &amp; 2 approx. 30% full, Hopper 3 full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 70% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hoppers 2 &amp; 3 approx. 50% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 30% full – requires draining/over-pumping.</p>	

**Tank 3B** – Tank empty – approximately 80% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 70% 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 - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full – requires draining/over-pumping

**Tank 6B** – Tank empty – approximately 25% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 60% full - requires draining/over-pumping.

**Tank 7A** - Tank empty – recently returned 90% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full - requires draining/over-pumping.

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

**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 20% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 approx. 95% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was low – almost bottomed out - 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	003	ppm	12:58
Monitor 2	015	ppm	12:58
Monitor 3	000	ppm	12:58
Monitor 4	000	ppm	12:58
Monitor 5	003	ppm	12:58
Monitor 6	006	ppm	12:58
Monitor 7	006	ppm	12:58
Monitor 8	004	ppm	12:58
Monitor 9	007	ppm	12:58
Monitor 10	000	ppm	12:58
Monitor 11	000	ppm	12:58
Monitor 12	005	ppm	12:58
Monitor 13	006	ppm	12:58
Wind Speed	7.5	mph	12:58
Wind Direction	82°		

**Odour Log (Thames):**

**Thursday 18<sup>th</sup> June 2020:**

**AM** – Cool – Cloudy/Sunny Spells.

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.

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

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

All OMU's in use.

**Observations/Complaints:** "OM2 spiked at 08:30-08:55 max 0.048ppm, OM5 spiked at 08:50-09:00 max 0.026ppm but < 15 mins duration".

**Operational Issues/Causes:** "Returning Storm Tanks".

**Actions:** None noted.

**PM** – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Saturday 20<sup>th</sup> June 2020:**

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

All OMU's in use.

**Observations/Complaints:** "OM2 spiked at 07:50 – 08:25 max 0.040ppm".

**Operational Issues/Causes:** "Returning Storm Tanks & pumping out dregs from PST's 5 & 6".

**Actions:** None noted.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM2 spiking @ 22:30 max 0.025, OM2 @ 00:00 – 00:39 max 0.039ppm".

**Operational Issues/Causes:** "Storm Tank 7B needs cleaning – Job raised".

**Actions:** None noted.

**Sunday 21<sup>st</sup> June 2020:**

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

All OMU's in use.

**Observations/Complaints:** "OM2 0.020 09:08-09:25, 0.023 09:55-10:05, 0.020 10:42-10:47".

**Operational Issues/Causes:** "Storm Tank 7B requires cleaning".

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked multiple times between 02:00-05:06 max 0.043ppm, OM8 spiked between 23:26-00:24 & 22:56-23:12 & 21:26-21:42 max".

**Operational Issues/Causes:** "Odour seems to be coming from Pasteurisation area.

**Actions:** "Asked Pasteurisation Tech1 to check around area for source of odour, area checked & hosed down".

**Monday 22<sup>nd</sup> June 2020:**

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

All OMU's in use.

**Observations/Complaints:** "OM2 0.046 10:45-11:11 & 0.029 05:29-05:52."

**Operational Issues/Causes:** "Inlet Area checked – No abnormalities".

**Actions:** None noted.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked at 19:20-19:34 but < 15 mins duration max 0.015ppm. OM3 spiked at 03:15-03:35 max 0.103ppm."

**Operational Issues/Causes:** "Strong odours from PAS area lower road".

**Actions:** None noted.

**Tuesday 23<sup>rd</sup> June 2020:**

**AM** – Very Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** "OM2 0.035 09:07-09:29 & 0.032 09:41-10:21 & 0.029 13:22-13:44".

**Operational Issues/Causes:** "Flare running and boilers on gas due to shut down. Inlet Area checked – no abnormalities".

**Actions:** None noted.

**PM** – Warm – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM2 spiked at 20:48-21:10 max 0.025ppm".

**Operational Issues/Causes:** "East Inlet and surrounding area checked - no odours found".

**Actions:** None noted.

**Wednesday 24<sup>th</sup> June 2020:**

**AM** – Very Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** "OM2 0.015 12:47-12:57 <15 mins".

**Operational Issues/Causes:** "Areas in vicinity of OM3 checked but no sources of odour found".

**Actions:** None noted.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM3 spiked on and off between 00:15-02:15 max 0.037ppm".

**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					
19/06/20	0	267	206	473	1920	2393
22/06/20	0	206	661	867	1753	2620
24/06/20	0	328	328	656	1920	2576

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. 6" below coping stones - good seal.

**Digester 6** - In use - seal level approx. 2ft below coping stones - seal weak and bubbling - dry spill requiring clean-up.

**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. Bell height high requiring draw down of Biogas.

**Digester 9** - In use - seal level approx. 2ft below coping stones - good seal.

**Digester 10** - 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 11** - In use - seal level approx. 5ft below surface of coping stones - seal weak and bubbling.

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

**Digester 13** - In use - seal level approx. 18" 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. 3ft below coping stones - seal weak and bubbling - Bell height high requiring draw down of Biogas.

**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** - In use - seal level approx. 3ft below coping stones - seal weak and bubbling - Bell height high requiring draw down of Biogas.

**Digester 20** - In use - seal level approx. 3ft below coping stones - good seal. Bell height high requiring draw down of Biogas.



**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**

No 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**

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

1x open container skip containing general waste & 1x enclosed 8 yard skip containing rag in Service Road at rear of Screen House.

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

**Pasteurisation Plant**

Pasteurisation plant = 10 streams running.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 80% obstructed in one channel (left) – requires jetting.

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

Rectangular PSTs – no issues.

Circular PST's 10, 11 & 12 in use. Tank 9 currently being brought back into service.

**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 – 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 (OCU 11)	No data	0.5	Unknown	
Pasteurisation Plant (OCU 12)	No data	0.5	Unknown	