



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 6 <sup>th</sup> February 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 and flushed clean – Hoppers 1 approx. 40% full – requires draining/over-pumping, Hoppers 2 &amp; 3 empty.</p> <p><b>Tank 1B</b> – Tank empty - approximately 15% of tank covered by grit/sludge – requires further flushing – Hoppers 1 &amp; 3 empty, Hopper 2 approx. 50% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty - approximately 25% of tank covered by grit/sludge – requires further flushing – Hoppers 1 &amp; 2 empty, Hopper 3 full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 50% full, Hoppers 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty and flushed clean – Hoppers 1, 2 &amp; 3 approx. 10% full – requires draining/over-pumping.</p> <p><b>Tank 3B</b> – Tank empty – recently returned 100% of tank covered by</p>	

grit/sludge – requires further flushing – Hoppers 1 & 3 approx. 40% full, Hopper 2 approx. 60% 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 30% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 approx. 95% full, Hopper 2 approx. 40% full – requires draining/over-pumping

**Tank 6B** – Tank empty – recently returned 100% 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 – approximately 25% 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 full - requires draining/over-pumping.

**Tank 8A** – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 full, Hopper 2 approx. 90% full – requires draining/over-pumping.

**Tank 8B** – Tank recently returned 80% of tank still covered with grit/sludge – requires further flushing. Hoppers 1 & 2 full, Hopper 3 approx. 80% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 50% - 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	009	ppm	14:05
Monitor 2	011	ppm	14:05
Monitor 3	005	ppm	14:05
Monitor 4	005	ppm	14:05
Monitor 5	016	ppm	14:05
Monitor 6	015	ppm	14:05
Monitor 7	006	ppm	14:05
Monitor 8	006	ppm	14:05
Monitor 9	008	ppm	14:05
Monitor 10	009	ppm	14:05
Monitor 11	006	ppm	14:05
Monitor 12	006	ppm	14:05
Monitor 13	004	ppm	14:05
Wind Speed	0.204	mph	14:05
Wind Direction	270		14:05

**Odour Log (Thames):**

**Thursday 30<sup>th</sup> January 2020:**

**AM – Cool – Rain with 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 31<sup>st</sup> January 2020:**

**AM** – Cool – Cloudy.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Cool – Rain.

All OMU's in use.

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

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

**Actions:** None noted.

**Saturday 1<sup>st</sup> February 2020:**

**AM** – Cool – Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM5 0.020 07:06-07:21."

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

**Actions:** None noted.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked at 23:52-00:07 max 0.024ppm. OM2 spiked at 04:17-04:33 max 0.035ppm."

**Operational Issues/Causes:** "Area checked no sources of odour detected."

**Actions:** None noted.

**Sunday 2<sup>nd</sup> February 2020:**

**AM** – Cool – Cloudy with Sunny spells.

All OMU's in use.

**Observations/Complaints:** "OM1 0.019 15:30-15:55. OM5 0.017 17:36 - ongoing."

**Operational Issues/Causes:** "Area checked no source discovered."

**Actions:** None noted.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked at 18:07-18:21 but <15 mins duration - max 0.018ppm."

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

**Actions:** None noted.

**Monday 3<sup>rd</sup> February 2020:**

**AM** – Cool – 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:** "OM2 spiked at 22:20-13:35 max 0.065ppm and OM8 spiked at 18:13-18:30 max 0.021ppm."

**Operational Issues/Causes:** "Areas checked, no obvious cause of odour."

**Actions:** None noted.

**Tuesday 4<sup>th</sup> February 2020:**

**AM** – Cold – Cloudy with 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:** "OM1 spiked to 0.021 for less than 15 min."

**Operational Issues/Causes:** "Area checked no source discovered."

**Actions:** None noted.

**Wednesday 5<sup>th</sup> February 2020:**

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

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Freezing – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM2 0.015 @ 19:50-20:19."

**Operational Issues/Causes:** "Area checked no source discovered."

**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					
31/01/20	0	267	618	885	3235	4120
03/02/20	0	516	661	1177	2528	3705
05/02/20	0	661	534	1195	3706	4901

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 – seal weak and bubbling.

**Digester 6** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

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

**Digester 8** - In use – seal level approx. 18” below coping stones - seal weak and bubbling. Bell height high requiring draw down of Biogas.

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

**Digester 10** - 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 11** - In use – seal level approx. 2ft below surface of coping stones – seal weak and bubbling.

**Digester 12** - In use – seal blown at surface and ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

**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. 1ft 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 blown at surface and ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

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



**GENERAL**

**Sludge Screening House**

Roller shutter door approx. 1ft open - All other 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).

**Skips**

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

2x enclosed container skips containing rag awaiting collection by West Side PST's.

**Pasteurisation Plant**

Pasteurisation plant 9 streams running.

**East Side Raw Sludge Screen House**

Doors open at time of inspection – works ongoing to clear spillage within screening house.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% 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 50% blocked – required jetting.

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

**Odour Control Unit (OCU) performance monitoring – (05/02/20)**

<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	0.007 0.006 0.005  (converted from ppb figures provided)	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	0.003 0.003 0.003  (converted from ppb figures provided)	0.6	Yes	
Transfer PS inlet	0.010 0.009 0.008	Unknown	Unknown	
Transfer PS outlet	0.000 0.000 0.000	0.5	Yes	
New West inlet (OCU 11)	0.003 0.003 0.003	0.5	Yes	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	