



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 11 <sup>th</sup> July 2019	
<b>Attendees:</b> Mr Steven Maunders and Mr Manzoor Hussain (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 40% of tank covered by dried grit and sludge – requires flushing/hosing to remove. Hoppers 1 &amp; 2 approx. 50% full. Hopper 3 drained down to bottom.</p> <p><b>Tank 1B</b> – Tank empty and flushed - approximately 10% of tank covered by dried grit – requires further flushing. Hoppers 1, 2 &amp; 3 approx. 25% full.</p> <p><b>Tank 2A</b> – Tank empty and flushed clean. Hoppers 1, 2 &amp; 3 approx. 25% full - requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty and flushed - approximately 20% of tank covered by dried grit – requires further flushing. Hoppers 1, 2 &amp; 3 approx. 25% full.</p> <p><b>Tank 3A</b> – Tank empty and flushed clean. Hoppers 1, 2 &amp; 3 approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 3B</b> — Tank empty and flushed - approximately 10% of tank covered by dried grit – requires further flushing. Hoppers 1, 2 &amp; 3</p>	

approx.25% 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 and flushed clean. Hoppers 1, 2 & 3 approximately 25% full - requires draining/over-pumping.

**Tank 6B** – Tank empty and flushed - approximately 20% of tank covered by grit – requires further flushing/hosing to remove. Hoppers 1, 2 & 3 approximately 25% full - requires draining/over-pumping.

**Tank 7A** – Tank empty – approx. 30% of tank covered by grit and sludge – requires further flushing/hosing to remove. Hoppers 1 & 2 full – requires draining/over-pumping. Hopper 3 drained down to bottom.

**Tank 7B** – Tank empty and flushed - approximately 25% of tank covered by grit – requires further flushing/hosing to remove. Hoppers 1, 2 & 3 drained down to bottom.

**Tank 8A** – Tank empty – approx. 25% of tank covered by dried grit – requires further flushing/hosing to remove. Hopper 1 full, Hoppers 2 & 3 approx. 40% full.

**Tank 8B** – Tank empty – approx. 15% of tank covered by dried grit and sludge – requires further flushing/hosing to remove. Hoppers 1, 2 & 3 approximately 50% 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 of the monitors, which were providing data at time of inspection:

Monitor 1	0.003	ppm	14:21
Monitor 2	0.004	ppm	14:21
Monitor 3	0.000	ppm	14:21
Monitor 4	0.000	ppm	14:21
Monitor 5	0.000	ppm	14:21
Monitor 6	0.004	ppm	14:21
Monitor 7	0.004	ppm	14:21
Monitor 8	0.004	ppm	14:21
Monitor 9	0.004	ppm	14:21
Monitor 10	0.005	ppm	14:21
Monitor 11	0.004	ppm	14:21
Monitor 12	0.004	ppm	14:21
Monitor 13	0.003	ppm	14:21
Wind Speed	1.5	mph	
Wind Direction	223°		

**Odour Log (Thames):**

Data supplied for 27<sup>th</sup> and 28<sup>th</sup> June 2019 that were unavailable at time of prior inspection on 04/07/19:

**Thursday 27<sup>th</sup> June 2019:**

**AM** – Warm – Sunny with patchy clouds.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Warm – Sunny

All OMU's in use.

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

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

**Actions:** None noted.

**Friday 28<sup>th</sup> June 2019:**

**AM** – Hot – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Warm – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

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**Thursday 4<sup>th</sup> July 2019:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "None".

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

**Actions:** None noted.

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Friday 5<sup>th</sup> July 2019:**

**AM** – Warm – Sunny.

All OMU's in use.

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

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

**Actions:** None noted.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "23:00 Customer complaint received via WOCC MRAG (Mr Taylor of Weavers Close)."

**Operational Issues/Causes:** "Monitor 5 spiked at 00:10-00:24 <15 mins duration max 0.018ppm."

**Actions:** "Checked around PAS but no abnormal odours discovered."

**Saturday 6<sup>th</sup> July 2019:**

**AM** – Warm – Sunny with patchy clouds.

All OMU's in use.

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

**Operational Issues/Causes:** "Raw sludge tanks overflowed today."

**Actions:** None noted.

**PM** – Warm – Overcast Night.

All OMU's in use.

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

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

**Actions:** None noted.

**Sunday 7<sup>th</sup> July 2019:**

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

All OMU's in use.

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

**Operational Issues/Causes:** "OM2 0.015 @ 14:58-15:22."

**Actions:** None noted.

**PM** – Warm – Rain.

All OMU's in use.

**Observations/Complaints:** "Customer complaint received via WOCC."

**Operational Issues/Causes:** "Spikes on Trends from OM2 on and off between 18:50-21:00, 22:15-23:20 and a01:30-02:00."

**Actions:** "East Inlet checked no sources of odour identified."

**Monday 8<sup>th</sup> July 2019:**

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

All OMU's in use.

**Observations/Complaints:** "Odour spike."

**Operational Issues/Causes:** "OM2 spiked to 0.02ppm from 06:24 to 06:37."

**Actions:** "No source found – Inlet Works being washed down."

**PM** – Warm – Cloudy.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM2 spiked through the night max 0.048ppm."

**Actions:** "East Inlet checked – no sources of odour identified, Area washed down by Tech 1."

**Tuesday 9<sup>th</sup> July 2019:**

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

All OMU's in use.

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

**Operational Issues/Causes:** "Odour monitors being serviced."

**Actions:** None noted.

**PM** – Warm – Overcast Night.

All OMU's in use.

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

**Operational Issues/Causes:** "OM2 0.015 @ 21:59 – 23:39, OM2 0.015 @ 23:58 – 00:22, OM2 0.015 @ 00:29 – 01:04, OM2 0.015 @ 04:50 – 05:01."

**Actions:** "Tom reports area smelly."

**Wednesday 10<sup>th</sup> July 2019:**

**AM** – Hot – Sunny with patch clouds.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM2 spike several times through the day but less than 15 mins."

**Actions:** "Area checked no obvious odours found – Day works washed

down area.”

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** “OM2 0.015 18:32 – 18:51, OM2 19:03 – 19:18. OM2 0.015 01:55 – 02:51, OM5 0.0127 03:23 – 03:38.”

**Actions:** “Odour complaint – MRAG – Area toured – Smelly – discuss with OHC.”

### 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					
07/07/19	0	1635 (TW figure 1696)	0	1635	936	2571 (TW figure 2632)
08/07/19	0	1372	0	1372	936	2308
09/07/19	0	244	183	427	1568	1995

**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. 1ft below coping stones - seal weak and bubbling.

**Digester 6** - in use – seal level approx. 2ft below coping stones – good seal.



**Digester 7** - in use – seal level approx. 3ft below coping stones – seal weak and bubbling - Ongoing spitting/spill – tank “gurgling” - requires anti-foam and clean-up – Bell height high – requires draw down of biogas.

**Digester 8**- in use – seal level approx. 2ft 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. 1ft below coping stones - seal weak and bubbling.

**Digester 11** - in use – seal level approx. 3ft below surface of coping stones – seal weak and bubbling.

**Digester 12** - in use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 13** in use – seal level approx. 3ft below surface of coping stones – seal weak and bubbling – evidence of large recent spill accumulated under adjacent cabling ducting – requires anti-foam and clean-up.

**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** - out of use – empty and clean – contractor on site undertaking maintenance.

**Digester 17** - in use – seal level approx. 3ft below coping stones - seal weak and bubbling. Evidence of previous dried spill that requires clean-up.

**Digester 18** - in use – seal level approx. 2ft below coping stones –

good seal.

**Digester 19** - in use – seal level approx. 4ft below coping stones – seal weak and bubbling. Evidence of previous dried spill that requires clean-up.

**Digester 20** - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

Roller shutter Doors approx. 6” open All other doors closed at time of inspection.

### **Imported Sludge**

Approx. 10 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). Green Algae on 100% of surface of Tanks 73 & 74. Thick sludge across approx. 50% of surface of Tank 71.

### **Skips**

1x large enclosed skip, 1x small enclosed skip & 1x (8 yard) open skip (covered with tarpaulin) located in Service Road by Storm Water Tanks.

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

### **Pasteurisation Plant**

Pasteurisation plant currently six streams out of service (number unspecified).

**East Side Raw Sludge Screen House**

Doors open at time of inspection – awaiting changeover of skips.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel approximately 75% obstructed in one channel – requires jetting.

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

Rectangular PSTs – no issues  
Circular PST's 9, 10 & 11 all in use. Tank 12 drained and out of use.

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 completely clear.

“Fluffy” coverage across surface broken down completely since previous visit – visible churn across entirety of tank. Quantity of sanitary items by-passing screener reduced significantly.

**Odour Control Unit (OCU) performance monitoring – (10/07/19)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.05 0.05 0.05	Unknown	Unknown
Main pumping station outlet	0.00	0.2	Yes

	0.00 0.00		
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	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.01 0.01 0.01	0.6	Yes
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.01 0.01 0.01	0.5	Yes