



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 21 <sup>st</sup> March 2019	
<b>Attendees:</b> Mr Andrew Devine and Mr Manzoor Hussein (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, approximately 20% of tank covered by grit and sludge – requires further flushing - Hopper 1 approx. ¼ full - Hoppers 2 &amp; 3 approx. 2/3 full requires draining/over-pumping. A slight odour was noted around this tank.</p> <p><b>Tank 1B</b> – Tank empty and flushed. Hoppers 1, 2 &amp; 3 full to brim and flowing back into tank, requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty and flushed clean but some scum and grit remaining in tank – Hoppers 1, 2 &amp; 3, approx. 10% full - requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank recently returned – approx. 10% of tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 &amp; 3 full - requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty and flushed clean – Hoppers 1, 2 &amp; 3 drained down to bottom level but still requires further overpumping.</p> <p><b>Tank 3B</b> – Tank recently returned – approx. 50% of tank covered by</p>	

grit and sludge – requires further flushing – Hoppers 1, 2 & 3 approximately ½ full and require overpumping. A slight odour was noted in the vicinity of this tank.

**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 returning, amajets 1, 2 and 3 all working.

**Tank 6B** – Tank empty and flushed. Hoppers 1 & 3 full and requires draining/over-pumping. Hopper 2 2/3 full, a scum was noted on the surface of the hoppers. All require further overpumping.

**Tank 7A** – Tank recently returned – approx. 25% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

**Tank 7B** – Tank recently returned – approx. 25% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

**Tank 8A** – Tank empty and clean. Hopper 1 was full, hoppers 2 and 3 were approximately 2/3 full. The water in the hoppers was noted to be black in colour.

**Tank 8B** – Tank empty and clean. Hoppers 1, 2 and 3 were approximately 2/3 full and a scum was noted on the surface.

**Feed Channel** - The level of effluent in both feed channels was low – almost bottomed out.

### **Complaints**

**The Council directly received one complaints by telephone in the preceding week.**

A complaint was received at approx 10:37 on the 18<sup>th</sup> March 2019 from the Mogden Lane area of Isleworth. The duty Officer returned the call

at approx 10:40 however the complainant was no longer at the property. The Odour Monitor trends for the day illustrated that at approx 18:53pm there was a slight hike with OM5 which measured odour at 0.023ppm, between 18:53pm to 19:08pm. Odour Monitor 1 was no showing any readings. No other trends were shown to be elevated. Our Ref for this complaint is logged as 981863.

**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 (although this contradicts Odour Log).***

### **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	0.000	ppm	13:16
Monitor 2	0.006	ppm	13:16
Monitor 3	0.000	ppm	13:16
Monitor 4	0.007	ppm	13:16
Monitor 5	0.009	ppm	13:16
Monitor 6	0.005	ppm	13:16
Monitor 7	0.005	ppm	13:16
Monitor 8	0.006	ppm	13:16
Monitor 9	0.005	ppm	13:16
Monitor 10	0.006	ppm	13:16
Monitor 11	0.005	ppm	13:16
Monitor 12	0.006	ppm	13:16
Monitor 13	0.005	ppm	13:16
Wind Speed	7.9	mph	13:16
Wind Direction	246°		13:16

**Odour Log (Thames) - Photocopies of log entries taken**

**Thursday 14<sup>th</sup> March 2019**

**AM** – Cold. Rain w/ Sunny Spells

All OMU's in use.

**Observations/Complaints:** None.

**Operational Issues/Causes:** "No odour spikes on trends. Pas still smelly".

**Actions:** None noted.

**PM** – Cool. Rain.

All OMU's in use.

**Observations/Complaints:** None

**Operational Issues/Causes:** "No odour issues overnight."

**Actions:** None noted.

**Friday 15<sup>th</sup> March 2019**

**AM** – Cool. Cloudy w/ Sunny Spells

All OMU's in use.

**Observations/Complaints:** None.

**Operational Issues/Causes:** "No odour issues found or reported. OM2 has stopped trending since 4pm".

**Actions:** "Reported".

**PM** – Cool, Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.020ppm 21.53-22.08 0.020ppm 23.37-23.53".

**Operational Issues/Causes:** "Strong odour from PAS area on occasions".

**Actions:** None noted.

**Saturday 16<sup>th</sup> March 2019**

**AM** – Cool, Cloudy.

All OMU's in use.

**Observations/Complaints:** None Noted.

**Operational Issues/Causes:** "No odour issues found or reported. OM1 not trending. OM2 trend lost 9:30-15:00".

**Actions:** None noted.

**PM** – Cool, rain.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "No odour issues".

**Actions:** None noted.

### **Sunday 17<sup>th</sup> March 2019**

**AM** – Cool, Rain w/ Sunny Spells.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "No odour issues found or reported".

**Actions:** None noted.

**PM** – Cool, Clear Night.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM3 peaked to 0.021 from 04:05 to 04:34".

**Actions:** Area checked around E battery PST's and inlets no obvious odours found.

### **Monday 18<sup>th</sup> March 2019**

**AM** – Cool, Sunny w/ Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM1 not trending, OM8 0.016 16:34-16:44".

**Actions:** "West OCU out of service, issue with drive belts. No obvious source found".

**PM** – Cool, Clear Night.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM3 peaked to 0.022 from 03:19 to 03:49".

**Actions:** "Area checked nothing suspicious found".

### **Tuesday 19<sup>h</sup> March 2019**

**AM** – Cool, Rain w/ Sunny Spell

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM1 not trending, OM5 0.017ppm 7:23-7:37, OM6 13:03-13:19 OM8 0.022ppm 13:19-13:34".

**Actions:** "Area checked, no obvious source found".

**PM** – Cool, overcast night.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM1 not trending. OM8 spiked at 0050 but <15 mins duration max 0.024ppm".

**Actions:** None noted.

**Wednesday 20<sup>th</sup> March 2019**

**AM** – Cool, Cloudy w/ Sunny Spells.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM1 not trending. No odour issues".

**Actions:** "Spillage near Pas 8 due to coil. Digested sludge spillage on road near gas compressors".

**PM** – Cool, Overcast Night.

All OMU's in use.

**Observations/Complaints:** None noted.

**Operational Issues/Causes:** "OM5 Spiked at 1935-2036 max 0.035ppm, OM7 2153-2248".

**Actions:** "PAS 8 Spill being cleaned up".

### 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					
18/03/19	0	1842*	581	2423	3419	5842
19/03/19	0	1364	642	2006	4572	6578
20/03/19	0	1884	642	2526	4089	6615

**\*The Thames Water Log sheet recorded this value as 1636, however when checking the numbers recorded for each tank the above total was calculated (1842).**

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 - evidence of recent spill - requires anti-foam and clean-up.

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

weak and bubbling - evidence of large scale recent spill - requires anti-foam and clean-up.

**Digester 7** - in use - seal level approx. 2ft below coping stones - seal weak and bubbling - evidence of historic spill - requires anti-foam and clean-up.

**Digester 8** – in use – seal level approx. 3ft below coping stones – seal weak and bubbling – evidence of historic spill – requires anti-foam and clean-up.

**Digester 9** - in use - seal level approx. 1ft below surface of coping stones - evidence of historic spill - requires anti-foam and clean-up.

**Digester 10** - in use - seal level approx. 2ft below surface of coping stones - evidence of historic spill - requires anti-foam and clean-up.

**Digester 11** - in use - seal level approx. 2ft below surface of coping stones - seal weak and bubbling - evidence of recent spill accumulated under adjacent cabling ducting - requires anti-foam and clean-up.

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

**Digester 13** - in use - seal level approx. Good seal.

**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.

**Digester 18** - in use - seal level approx. 3ft below coping stones - seal weak and bubbling - evidence of historic spill, requires anti-foam and



clean-up.

**Digester 19** - in use - seal level approx. 2ft below coping stones - good seal.

**Digester 20** - in use - seal level approx. 2ft below coping stones - seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

All doors closed at time of inspection.

### **Imported Sludge**

Estimated average of five 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 20 yard open skip & 2x (8 yard) open uncovered general waste skips located in at the east side grit skips.

1x large enclosed skip and 1x 20 yard open skip & 2x (8 yard) open uncovered general waste skips located in Service Road by Storm Water Tanks.

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

1x open skip in use for transfer materials from mobile screening plant located by Pasteurisation Plant.

1x large open empty uncovered skip.

**Pasteurisation Plant**

Pasteurisation plant 1/4/9 currently out of service - All remaining pasteurisation plant in service and fully operational.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

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

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 all in use. Circular PST 12 out of use due to a weir problem.

**West Side Aeration Lanes (Old)**

No issues

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 clear and unobstructed – jetting crew just finished working on area.

“Fluffy” coverage across surface returned across 100% of tank – thickened up so as to obscure internal dividing walls within tank.

**Odour Control Unit (OCU) performance monitoring - (18/02/19)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00	Unknown	Unknown

	0.00 0.00		
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	No data	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	0.06 0.05 0.06	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)	0.00 0.00 0.00	0.5	Yes