

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Thursday 2<sup>nd</sup> January 2020 (12:30)

**Attendees:** Mr L Phillips (LBH) and Ms Charlotte Page (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** Was empty and clean and all hoppers had been drained down to lowest point.

**Tank 1B** Was empty and clean, slight grit build up at the end of the tank nearest to the hoppers. All hoppers full and required draining.

**Tank 2A** Was empty and clean, all hoppers full and require draining. Slight grit build up at the end of the tank nearest the hoppers.

**Tank 2B** Was empty and clean. All hoppers full and required draining down.

**Tank 3A** Was empty and clean and all hoppers had been drained down to lowest point.

**Tank 3B** Was empty and clean. All hoppers full and require draining.

**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** Was empty and clean, slight grit build up at the rear of the tank hoppers end. All hoppers full and require draining down.

**Tank 6B** Was empty and clean, slight grit build up at the rear of the tank hoppers end. All hoppers full and require draining.

**Tank 7A** Was empty and clean all hoppers full and require draining (Shallow hoppers).

**Tank 7B** was empty but sludge covered 80% of tank. All hoppers full tank requires flushing no odour detected.

**Tank 8A** Empty and clean all hoppers full and require draining down, no odour detected.

**Tank 8B** Empty and clean all hoppers full and require draining down, no odour detected.

**Feed Channel** - The level of effluent in both feed channels was at 20% high - in places it was murky with fatty deposits visible. Most of the channel was free flowing and odourless. No local odours rags, fats or solids.

### **Complaints**

**The Council received no complaints by telephone in the preceding week.**

**The Council 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	0.004	ppm	12:31
Monitor 2	0.005	ppm	12:31
Monitor 3	0.000	ppm	12:32
Monitor 4	0.003	ppm	12:31
Monitor 5	0.013	ppm	12:31
Monitor 6	0.008	ppm	12:31
Monitor 7	0.007	ppm	12:32
Monitor 8	0.006	ppm	12:32
Monitor 9	0.004	ppm	12:33
Monitor 10	0.005	ppm	12:33
Monitor 11	0.005	ppm	12:33
Monitor 12	0.007	ppm	12:33
Monitor 13	0.006	ppm	12:33
Wind Speed	8.338	mph	12:33
Wind Direction	202.553	Deg	12:33

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

**Thursday 26<sup>th</sup> December 2019**

**AM****Temp:** Cool.**Weather:** Rain.

All OMU's in use.

**Time:** 17:30.**Observations/Complaints:** No odour issues.**Operational Issues/Causes:** None noted.**Actions:** None noted.**PM****Temp:** Cool**Weather:** Overcast.

All OMU's in use.

**Time:** 05:30.**Observations/Complaints:** OM5 – 0.016 from 18:05 – 18:34 OM8 – 0.015 from 22:27 – 23:26**Operational Issues/Causes:** None noted.**Actions:** None noted.**Friday 27<sup>th</sup> December 2019****AM****Temp:** Cool**Weather:** Sunny W / Patchy Clouds.

All OMU's in use.

**Time:** 17:30**Observations/Complaints:** OM2 0.021ppm and OM 5 0.016ppm both spikes less than 15 minutes.**Operational Issues/Causes:** None noted.**Actions:** None noted.**PM****Temp:** Cool**Weather:** Cloudy.

All OMU's in use.

**Time:** 04:43.**Observations/Complaints:** OM2 MAX 0.022ppm 04:43 to 05:02.

**Operational Issues/Causes:** Inlet area checked no obvious odours detected skip area washed down.

**Actions:** None noted.

**Saturday 28<sup>st</sup> December 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy.

All OMU's in use.

**Time:** 17:30.

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

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

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Overcast night.

All OMU's in use.

**Time:** 05:30.

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

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

**Actions:** None Noted.

**Sunday 29<sup>th</sup> December 2019**

**AM**

**Temp:** Cool.

**Weather:** Sunny W / Patchy Clouds.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM2 0.017ppm 09:36- 09:54

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

**Actions:** None Noted.

**PM**

**Temp:** Cool.

**Weather:** Overcast night.

All OMU's in use.

**Time:** 05:30.

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

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

**Actions:** None noted.

### **Monday 30<sup>th</sup> December 2019**

**AM**

**Temp:** Cold.

**Weather:** Sunny.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM5 0.015 AT 15:35 – 15:48.

**Operational Issues/Causes:** Area checked no odours detected.

**Actions:** None noted.

**PM**

**Temp:** Cold.

**Weather:** Clear night.

All OMU's in use.

**Time:** 05:30

**Observations/Complaints:** OM5 max 0.023ppm 18:30 – 19:00.

**Operational Issues/Causes:** Area around west of Powerhouse checked nothing of any note found.

**Actions:** None noted.

### **Tuesday 31<sup>st</sup> December 2019**

**AM**

**Temp:** Cool.

**Weather:** Sunny W / Patchy Clouds.

All OMU's in use.

**Time:** 17:30.

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

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

**Actions:** none noted.

**PM**

**Temp:** Cold.

**Weather:** Clear night.

All OMU's in use.

**Time:** 05:30.

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

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

**Actions:** None noted.

**Wednesday 01<sup>st</sup> December 2019**

**AM**

**Temp:** Cool.

**Weather:** Cloudy.

All OMU's in use.

**Time:** 17:30.

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

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

**Actions:** None noted.

**PM**

**Temp:** Cool.

**Weather:** Clear night.

All OMU's in use.

**Time:** 05:30.

**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					
27/12/2019	0	1012	450	1462	4860	6322
31/12/2019	0	1199	412	1611	4380	5991

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 - weak seal no evidence of spill.

**Digester 6** - In use - weak seal no evidence of spill.

**Digester 7** - Out of service.



**Digester 8** - In use - weak seal no evidence of spill.

**Digester 9** - In use - weak seal no evidence of spill.

**Digester 10** - In use - weak seal no evidence of spill.

**Digester 11** - In use - weak seal no evidence of spill.

**Digester 12** - in use - seal level approx. 1ft below coping stones - good seal.

**Digester 13** - In use - good thick seal no evidence of spill.

**Digester 14** - out of use.

**Digester 15** - out of use.

**Digester 16** - In use - weak seal no evidence of spill.

**Digester 17** - In use - weak seal no evidence of spill.

**Digester 18** - In use - weak seal no evidence of spill.

**Digester 19** - In use - weak seal no evidence of spill.

**Digester 20** - In use - weak seal no evidence of spill.

No odour in the area observed at times of inspection

**GENERAL**

**Sludge Screening House**

All doors closed at time of inspection no odours observed.

**Imported Sludge**

Imports were closed – No deliveries made.

**Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). All jets and hoses were in operation and no excessive build-up of algae.

**Skips**

No Skips on the East side screening House.  
Eastside Grit House- 2 x 12 yard skips full with general waste / NO covers  
No Skips on the West Side gritting house.  
No odour detected at both locations.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

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

Rectangular PSTs – No issues noticed at time of inspection

Circular PST 9 out of service. PST's 10, 11, and 12 were al in use all hoses were in operation. No Odours observed.

**Pasteurisation Plant**

Pasteurisation plant had ten streams in service fully operational.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel approximately 100% clear of any obstruction- effluent is flowing with ease NO rags or build up noticed..

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours.

The “Fluffy” coverage (obscured internal dividing walls within tank) that had been observed on previous visits had lightened in texture revealing the dividing walls within the tank. There were no concerning odours around this area.

**Odour Control Unit (OCU) performance monitoring – (NO RECORD AVAILABLE DUE TO CHRISTMAS)**

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

	<b>Ave: 0.01</b>		
Main pumping station outlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.2	Yes
East OCU	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.05	Yes
West inlet OCU	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.05	Yes
Sludge reception inlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00 <b>Ave: 0.01</b>	0.6	Yes
Transfer PS inlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.6	Yes

New West inlet (OCU 11)	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.5	Yes	
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 <b>Ave: 0.00</b>	0.5	Yes	