



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 21 <sup>st</sup> September 2021	
<b>Attendees:</b> Mr Steven Maunders and Miss Caitlin Simmonds (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 – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 60% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> - Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – Hopper 1 empty, Hoppers 2 &amp; 3 approx. 90% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers empty.</p> <p><b>Tank 3B</b> – Tank backfilling due to faulty return valve – approx. 70% of</p>	

surface covered in effluent. Remainder of tank covered in grit and sludge – requires further flushing.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 60% full – requires draining/over-pumping.

**Tank 6B** – Tank empty and flushed clean – Hopper 1 full, Hoppers 2 & 3 approx. 40% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers empty.

**Tank 7B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 8A** – Tank empty and flushed clean – All Hoppers full – requires draining/over-pumping.

**Tank 8B** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 90% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

### **Complaints**

**The Council directly received one complaint by telephone in the preceding week – 16/09/21 01:17 from the area of Weavers Close – details were passed through to the out of hours duty Officer and a direct response was sent to the Resident.**

The Council directly received three complaints by email in the preceding week:

15/09/21 13:42 from the area of Hall Road – generic complaint and not relating to specific incidence – correspondence sent.

16/09/21 01:45 from the area of Weavers Close – this was a duplication of the telephone contact referred to above.

20/09/21 22:12 from the area of Harvesters Close – generic complaint and not relating to specific incidence – correspondence sent.

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 monitors which were providing data at time of inspection:

Monitor 1	000	ppm	13:31
Monitor 2	.001	ppm	13:31
Monitor 3	000	ppm	13:31
Monitor 4	000	ppm	13:31
Monitor 5	000	ppm	13:31
Monitor 6	000	ppm	13:31
Monitor 7	003	ppm	13:31
Monitor 8	000	ppm	13:31
Monitor 9	003	ppm	13:31
Monitor 10	003	ppm	13:31
Monitor 11	000	ppm	13:31
Monitor 12	000	ppm	13:31
Monitor 13	000	ppm	13:31
Wind Speed	0.2	mph	13:31
Wind Direction	73.6°		13:31

**Odour Log (Thames):**

**Tuesday 14<sup>th</sup> September 2021:**

**AM** – Warm – Rain.

All OMU's in use.

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

**Operational Issues/Causes:** "Storm tanks going to river".

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** No data.

**Wednesday 15<sup>th</sup> September 2021:**

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

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 16<sup>th</sup> September 2021:**

**AM** – Hot – Sunny.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 17<sup>th</sup> September 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM3 spiked at 01:20-01:34 max 0.021ppm."

**Operational Issues/Causes:** "OCU stack value is 0.85ppm which is above."

**Actions:** No data.

**Saturday 18<sup>th</sup> September 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM3 Max 0.038ppm between 20:48-21:34."- OCU showing high output from scrubbers 967ppb."

**Actions:** "Checked area around new West – no obvious odours."

**Sunday 19<sup>th</sup> September 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** –Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 20<sup>th</sup> September 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 21<sup>st</sup> September 2021:**

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

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "Odour complaint received from Mogden Lane @ 22:15."

**Operational Issues/Causes:** No data.

**Actions:** "Site inspection made. No evidence of odour and no spike on Trends."

**Wednesday 22<sup>nd</sup> September 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "OM3 Max 0.029ppm @ 16:04-16:17."

**Operational Issues/Causes:** "FST 85 Draining."

**Actions:** "Sludge on Tank being hosed down."

**PM** – Cool – Clear Night.

All OMU's in use.

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

**Operational Issues/Causes:** No data.

**Actions:** No data.

### 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>					
<b>OMP limit</b>	<b>500</b>					
15/09/21	0	1236	305	1541	608	2149
17/09/21	0	946	740	1686	456	2142
20/09/21	0	946	740	1686	608 TW figure 456	2294 TW figure 2142

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** – Out of use.

**Digester 6** - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 4ft below coping stones - seal



weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously.

**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. 4ft below 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. 18” below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level at level of coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

One door ajar. All remaining doors closed at the time of inspection.

### **Imported Sludge**

Average of ten 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) – Tank 75 = 25% of surface covered in “duck weed”.

### **Skips**

1x open container grit skip (20 % full) uncovered, 1x 8-yard general waste skip (partially covered), 2x 8-yard General Waste skip (uncovered), 1x 8-yard General Waste skip (uncovered and additional waste alongside at base of Battery E staircase, 2x 6-yard covered rag skips & 1x 6-yard General Waste skip at rear of Pasteurisation Plant (covered), 1x enclosed container skip (empty) in Service Road at rear of Sludge Screen House. 1x enclosed container skip (empty) & 1x open container skip in Service Road alongside PST's 9-12.

### **East Side Raw Sludge Screen House**

Doors open at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left)

– requires jetting (TW advise that there is continuing flow below surface).

**Pasteurisation Plant**

Nine streams running.

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

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**New Works (West Side) Battery E**

Feed Channel for Aeration Lanes – recently jetted. 2x piles of rag left on walkway. Tank performance progressively improving.

**Odour Control Unit (OCU) performance monitoring – 20/09/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
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	0.00 0.00 0.00	0.05	Yes
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	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	101.9 98.6 99.9	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.003 0.00 0.01	0.5	Yes
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown