



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 27 th July 2021	
Attendees: Mr Steven Maunders and Mr Dan Grady (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty and flushed clean – Hopper 1 approx. 90% full, Hoppers 2 & 3 80% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty and flushed clean – Hopper 1 approx. 90% full, Hoppers 2 & 3 80% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 25% of tank covered by sludge and grit – requires further flushing – All Hoppers approx. 95% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty – approximately 80% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p>Tank 3B – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires</p>	

draining/over-pumping.

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 – approximately 10% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 full, Hopper 2 approx. 75% full.

Tank 6B – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 approx. 95% full, Hopper 2 approx. 75% full.

Tank 7A – Tank in process of being returned – All Amajets in use.

Tank 7B – Tank in process of being returned – All Amajets in use.

Tank 8A – Tank empty – backfilling due to faulty return valve.

Tank 8B – Tank empty – approximately 40% of tank covered by grit and sludge – requires further flushing – All Hoppers full.

Feed Channel - The level of effluent in both feed channels was approximately 20% capacity - 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 (H₂S) for all monitors which were providing data at time of inspection:

Monitor 1	000	ppm	13:33
Monitor 2	.001	ppm	13:33
Monitor 3	000	ppm	13:33
Monitor 4	000	ppm	13:33
Monitor 5	000	ppm	13:33
Monitor 6	000	ppm	13:33
Monitor 7	000	ppm	13:33
Monitor 8	000	ppm	13:33
Monitor 9	000	ppm	13:33
Monitor 10	.003	ppm	13:33
Monitor 11	000	ppm	13:33
Monitor 12	000	ppm	13:33
Monitor 13	000	ppm	13:33
Wind Speed	0.2	mph	13:33
Wind Direction	169°		13:33

Odour Log (Thames):

Wednesday 21st July 2021:

AM – Very Hot – Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Hot – Clear Night.

All OMU's in use.

Observations/Complaints: "Sludge spill imported sludge area."

Operational Issues/Causes: No data.

Actions: "Spill cleaned."

Thursday 22nd July 2021:

AM – Hot – Sunny.

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: "No odour issues found or reported."

Operational Issues/Causes: No data.

Actions: No data.

Friday 23rd July 2021:

AM – Warm – 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 odours issues."

Operational Issues/Causes: No data.

Actions: No data.

Saturday 24th July 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: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Sunday 25th July 2021:

AM – Warm – Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Monday 26th July 2021:

AM – Warm – 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.

Tuesday 27th July 2021:

AM – Warm – Rain 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."

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 ³					
OMP limit	500					
23/07/21	0	1279 (TW figure 1340)	885	2164	912	3076 (TW figure 3137)
26/07/21	0	1236	885	2121	912	3033

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) 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. 4ft 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. 5ft below coping stones - seal weak and bubbling.

Digester 9 - In use - seal level approx. 4ft below coping stones - good seal.

Digester 10 - In use - seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 11 - In use - seal level approx. 2ft below coping stones - good seal.

Digester 12 - In use - seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 13 - In use - seal level approx. 18" below coping stones - seal weak and bubbling vigorously.

Digester 14 - In use - seal level approx. 18" below coping stones - seal weak and bubbling vigorously.

Digester 15 - Out of use.

Digester 16 - In use - seal level approx. 3ft below 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 - good seal.

Digester 18 - Out of use.

Digester 19 - Being brought back into service following maintenance - currently being filled.

Digester 20 - In use - seal level approx. 4ft below coping stones - seal

weak and bubbling.

GENERAL

Sludge Screening House

All doors open at the time of inspection.

Imported Sludge

Average of eight 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 = 100 of surface covered in “duck weed”.

Skips

1x open container grit/rag skip (50 % full) partially covered, 1x 8 yard general waste skip (covered), 1x 8 yard grit rag skip (empty), 1x enclosed container skip (empty) in Service Road at rear of Sludge Screen House. Evidence of sludge/grit leakage from skip into surface water gutter – required clean-up.

1x skip 50% full of water in Service Road by Pasteurisation Plant.

1x open container skip (empty) in Service Road alongside PST's 9-12.

East Side Raw Sludge Screen House

Doors closed 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 10% obstructed – requires jetting. Large thick crust evident previously has largely broken up and air noticeably breaking surface.

Odour Control Unit (OCU) performance monitoring – 27/07/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.317 0.134 0.130	0.2	No
East OCU	0.051 0.047 0.045	0.05	No

West inlet OCU	0.000 0.000 0.000	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	0.098 0.086 0.085	0.6	Yes
Transfer PS inlet	0.118 0.113 0.109	Unknown	Unknown
Transfer PS outlet	0.000 0.000 0.000	0.5	Yes
New West inlet (OCU11)	0.030 0.000 0.060	0.5	Yes
Pasteurisation Plant (OCU12)	0.011 0.018 0.014	0.5	Yes
GBT Plant OCU Outlet	0.000 0.000 0.000	Unknown	Unknown

“East OCU recirculation pumps tripping – unable to start scrubber 1”