



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 9 th March 2021	
Attendees: Mr Steven Maunders and Mr Tom Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty – approximately 5% of tank covered by grit – requires further flushing – Hoppers 1 & 3 approx. 75% full, Hopper 2 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty – approximately 25% of tank covered by grit – requires further flushing – Hoppers 100% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty – approximately 50% of tank covered by grit and dried sludge – requires further flushing – Hoppers 100% full with thick crust of sludge – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 50% of tank covered by grit and dried sludge – requires further flushing – Hoppers 100% full with thick crust of sludge – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty – approximately 75% of tank covered by grit and dried sludge – requires further flushing – Hoppers 100% full with thick crust of sludge – requires draining/over-pumping.</p>	

Tank 3B – Tank empty – approximately 50% of tank covered by grit and dried sludge – requires further flushing – Hopper 1 95% full with thick crust of sludge – Hoppers 2 & 3 approx. 25% full – requires 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 25% of tank covered by grit – requires further flushing – Hoppers 1 & 3 approx. 75% full, Hopper 2 approx. 50% full – requires draining/over-pumping.

Tank 6B – Tank empty and flushed clean – Hoppers 100% full – requires draining/over-pumping.

Tank 7A – Tank empty – approximately 50% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

Tank 7B – Tank empty but back filling from faulty return valve – approximately 75% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

Tank 8A – Tank in use and being returned – Amajets in use.

Tank 8B – Tank in use and being returned – Amajets in use.

Feed Channel - The level of effluent in both feed channels was approximately 50% 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	13:30
Monitor 2	.000	ppm	13:30
Monitor 3	.000	ppm	13:30
Monitor 4	.000	ppm	13:30
Monitor 5	.004	ppm	13:30
Monitor 6	.000	ppm	13:30
Monitor 7	.000	ppm	13:30
Monitor 8	.006	ppm	13:30
Monitor 9	.005	ppm	13:30
Monitor 10	.004	ppm	13:30
Monitor 11	.000	ppm	13:30
Monitor 12	.000	ppm	13:30
Monitor 13	.000	ppm	13:30
Wind Speed	7.7	mph	13:30
Wind Direction	275°		13:30

Odour Log (Thames):

Wednesday 3rd March 2021:

AM – Cold and Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cold - Rain.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 02:00-02:14 <15 mins duration max 0.032ppm."

Operational Issues/Causes: "No odours found."

Actions: No data.

Thursday 4th March 2021:

AM – Cool and Cloudy.

All OMU's in use.

Observations/Complaints: "OM5 spiked few times through the day but less than 15 mins each time, max 0.051ppm."

Operational Issues/Causes: "Some odours coming from sewer over on Main Drive."

Actions: No data.

PM – Cold – Overcast night.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 18:15-19:00 max 0.103ppm and at 02:13-02:29 <15 mins duration max 0.034ppm."

Operational Issues/Causes: "Main Drive low level sewer venting through manhole cover."

Actions: No data.

Friday 5th March 2021:

AM – Cool and Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM5 spiked few times through the day but less than 15 mins each time, max 0.024ppm."

Operational Issues/Causes: "Some odours coming from sewer cover on Main Drive."

Actions: No data.

PM – Cold – Clear night.

All OMU's in use.

Observations/Complaints: "OM10 0.024 19:04-19:19."

Operational Issues/Causes: "Flare running."

Actions: No data.

Saturday 6th March 2021:

AM – Cold – Cloudy.

All OMU's in use.

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

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cold – Clear night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

Sunday 7th March 2021:

AM – Cold - Cloudy with Sunny spells.

All OMU's in use.

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

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cold - Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.024 18:28-18:44."

Operational Issues/Causes: "Some odour from sewer on Main Drive."

Actions: No data.

Monday 8th March 2021:

AM – Cool – Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cold – Clear night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

Tuesday 9th March 2021:

AM – Cold – Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Overcast Night.

All OMU's in use.

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

Operational Issues/Causes: None noted.

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					
03/03/21	0	679	2718	3397	5200	8597
05/03/21	0	1405	1387	2792	5542	8334
08/03/21	0	2029	2155	4184	4396	5850

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

Digester 6 – Out of use.

Digester 7 - In use – seal level approx. 4ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 3ft below coping stones - seal

weak and bubbling – evidence of previous dried spill requiring clean-up.

Digester 9 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 10 - In use – seal level approx. 3ft 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. 4ft below coping stones - seal weak and bubbling – evidence of previous dried spill requiring clean-up.

Digester 13 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 14 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

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. 3ft below coping stones – seal weak and bubbling.

Digester 18 – Out of use.

Digester 19 – Out of use.

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

Doors closed at the time of inspection.

Imported Sludge

No 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

2x large open skip 1x empty & 1x general waste in Service Road at rear of Sludge Screen House.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

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).

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

<p>Circular PST's 9, 10 & 11 in use, Number 12 drained down.</p> <p><u>Pasteurisation Plant</u></p> <p>Six streams running.</p> <p><u>New Works (West Side)</u></p> <p>Feed Channel for Aeration Lanes 25% obstructed – requires jetting.</p>	

Odour Control Unit (OCU) performance monitoring – 09/03/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	2.427 2.096 1.876	0.2	No
East OCU	31.82 29.59 29.57	0.05	No
West inlet OCU	3.39 3.09 0.00	0.05	No
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	1.796	0.6	No

	1.680 1.586		
Transfer PS inlet	0.791 0.815 0.776	Unknown	Unknown
Transfer PS outlet	4.60 3.70 3.45	0.5	No
New West inlet (OCU11)	30.50 28.38 29.28	0.5	No
Pasteurisation Plant (OCU12)	3.79 3.46 3.05	0.5	No