



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 2 nd March 2021	
Attendees: Mr L Phillips (LB Hounslow) 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 slight grit at the end of the tank located at the hopper end. All hoppers drained down to lowest point.</p> <p>Tank 1B – Tank empty, slight grit at the end of the tank located at the hopper end. All hoppers full and require over-pumping.</p> <p>Tank 2A – Tank empty, slight grit at the end of the tank located at the hopper end, requires further flushing. Hoppers 100% full with thick crust of sludge, requires over-pumping.</p> <p>Tank 2B – Tank empty, slight grit at the end of the tank located at the hopper end, requires further flushing. Hoppers 100% full with thick crust of sludge, requires over-pumping.</p> <p>Tank 3A – Tank empty, tank surface covered in grit, requires further flushing. All hoppers full with thick crust of sludge, requires over-pumping.</p> <p>Tank 3B – Tank empty. Half of the tank covered by grit, requires</p>	

further flushing. Hopper 1 full with thick crust of sludge, requires over-pumping, hoppers 2 & 3 drained to lowest point.

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, slight grit at the end of tank hopper end, requires further flushing. Hoppers 1 & 3 approx. 75% full, hopper 2 approx. 50% full, requires draining/over-pumping.

Tank 6B – Tank empty, whole of tank covered in sludge and requires further flushing, Hoppers full, requires over-pumping.

Tank 7A – Tank empty, half of tank covered by grit, requires further flushing. All hoppers full, requires over-pumping.

Tank 7B – Tank empty but back filling from faulty return valve, half of tank of tank covered by grit, requires further flushing, All hoppers full, require over-pumping.

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

Tank 8B – Tank in use and being returned, all 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	0.000	ppm	14:11
Monitor 2	0.000	ppm	14:00
Monitor 3	0.007	ppm	14:00
Monitor 4	0.004	ppm	14:11
Monitor 5	0.004	ppm	14:11
Monitor 6	0.004	ppm	14:11
Monitor 7	0.003	ppm	14:12
Monitor 8	0.004	ppm	14:12
Monitor 9	0.005	ppm	14:12
Monitor 10	0.005	ppm	14:12
Monitor 11	0.000	ppm	14:12
Monitor 12	0.000	ppm	14:12
Monitor 13	0.000	ppm	14:12
Wind Speed	2.873	mph	14:12
Wind Direction	32.674		14:12

Odour Log (Thames):

Wednesday 24th February 2021

DAY SHIFT

Temp: Warm.

Weather: Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM2 spiking all shift.

Operational issues / causes observed: Storm tank 6 and 8 being cleaned.

Actions Taken: Cleaning storm tanks..

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM2 spiking all shift peaked at 0.024ppm.

Operational issues / causes observed: Storm tanks being returned. Tanks very dirty full of septic sludge.

Actions Taken: Tanks to be hosed down.

Thursday 25th February 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny W/ patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM8 spiked at 12:34 – 12:46 max 0.019ppm and 1747 – 18:00 max ppm both less than 15 mins.

Operational issues / causes observed: No obvious odour source found. Storm tanks 6 and 8 require cleaning.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM9 0.019PPM 02:33 – 03:01.

Operational issues / causes observed: Waste gas burner failed to start allowing digester bell heights to exceed 28 metres.

Actions Taken: Blank.

Friday 26th February 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny/W Patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM10 spiked at 12:18 – 12:34 max 0.019ppm multiple spikes from OM5 between 15:12 – 17:14 max 0.072ppm OM8 spiked at 15:00 – 15:19 max 0.020ppm.

Operational issues / causes observed: Waste gas burner in operation on and off throughout day due to lack of main gas compressors (which are awaiting repairs) Main drive sewer access cover to Twickenham sewer has gas venting from it from time to time.

Actions taken: Blank.

NIGHT SHIFT :

Temp: Cool.

Weather. Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM5 18:13 – 19:26 max 0.103ppm, OM9 18:33 – 19:13 max 0.046ppm.

Operational issues / causes observed. Main drive sewer vent venting storm tanks.

Actions taken: Cleaning of tank in progress.

Saturday 27th February 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny W/ Patch clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM10 16:34 – 16:50MAX 0.026PPM.

Operational issues / causes observed: Digesters gassing off and waste gas burner running due to lack of main gas compressors.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Warm.

Weather: Overcast.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM5 showing odours all shift.

Odour coming from sewer feeding MPS vent.OM10 @ 23:49 – 00:03
max 0.019ppm.

Operational issues / causes observed: Waste gas burner tripping.

Actions taken: Blank.

Sunday 28th February 2021

DAY SHIFT:

Temp: Warm.

Weather: Cloudy W/ Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Monday 1st March 2021

DAY SHIFT:

Temp: Cool.

Weather: Cloudy W/ Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM10 0.019 15:49 – 16:05
0.039 16:33 – 16:50 0.028 17:19 – 17:35.

Operational issues / causes observed: Digesters gassing off and gas burner running due to lack of main gas compressors. Gas burner tripped off twice today.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Cool.
Weather: Clear night.
Odour Readings: All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint:
OM10 @ 18:20 – 18:33 max 0.015.
Operational issues / causes observed: Area around digesters checked and all OK.
Actions Taken: Blank.

Tuesday 2nd March 2021

DAY SHIFT:

Temp: Cool.
Weather: Sunny W/ patchy clouds.
Odour Readings: All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint: No odour issues.
Operational issues / causes observed: Blank.
Actions taken: Blank.

NIGHT SHIFT

Temp: Cold.
Weather: Overcast night.
Odour Readings: All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint: OM5 spiked multiple times between 19:43 – 22:58 max 0.103ppm and at 19:53 – 22:58 02:00 – 02:12 max 0.023ppm. OM8 spiked at 21:16 – 21:35 max 0.047ppm and 21:57 – 22:35 max 0.043ppm. OM10 spiked at 03:03 – 03:19 less than 15v mins duration max 0.017ppm.
Operational issues / causes observed: Main drive low level sewer drain cover venting odours. Digesters number 16 gassing off through seal. EAST OCU running in one extraction fan mode. Number 2 fan keeps tripping.
Actions Taken: Notified site management defect raised for number 2 extraction fan.

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					
24/02/2021	0	1405	2343	3748	9089	12837
26/02/2021	0	1236	2530	3766	8558	12324
01/03/2021	0	1260	2156	3416	6217	9633

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 – Good thick seal – No evidence of spill.

Digester 6 - Out of use.

Digester 7 - In use – weak seal – no evidence of spill.

Digester 8 - In use – weak seal – evidence of previous dried spill requiring clean-up.

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

Digester 13 - In use -- weak seal – No evidence of spill.

Digester 14 - In use - weak seal– ongoing spill requiring anti-foam and clean-up.

Digester 15 - Out of use.

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

Digester 17 - In use -- weak seal – No evidence of spill.

Digester 18 - Out of use.

Digester 19 - Out of use.

Digester 20 - In use -- weak seal – No evidence of spill.

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

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

Pasteurisation Plant

Six streams running.

New Works (West Side)

Feed Channel for Aeration Lanes 25% obstructed – requires jetting.	

Odour Control Unit (OCU) performance monitoring – 01/03/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	8.421 8.508 8.327	0.2	No
East OCU	71.55 73.63 63.45	0.05	No
West inlet OCU	4.81 3.70 4.67	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	0.204 0.156 0.141	0.6	No
Transfer PS inlet	0.660 0.698 0.709	Unknown	Unknown
Transfer PS outlet	8.29 7.52 7.30	0.5	No
New West inlet (OCU11)	24.73 26.30 25.82	0.5	No

Pasteurisation Plant (OCU12)	1.252 1.707 1.749	0.5	No
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