



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 01 st April 2021	
Attendees: Mr L. Phillips 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 clean - Slight grit build up at the end of the tank (Hopper end) all the hoppers needed draining 50% full.</p> <p>Tank 1B – Tank empty clean – All hoppers full and require draining/over pumping.</p> <p>Tank 2A – Tank empty clean slight grit at end of the tank (hopper end) all hoppers full and require draining/over-pumping.</p> <p>Tank 2B – Tank empty clean slight grit at end of the tank (hopper end) all hoppers full and require draining/over-pumping.</p> <p>Tank 3A – Tank empty clean slight grit at end of the tank (hopper end) all hoppers full and require draining/over-pumping.</p> <p>Tank 3B – Tank empty clean slight grit at end of the tank (hopper end) all hoppers full and require draining/over-pumping.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not</p>	

working.

Tank 6A – Tank empty clean all hoppers full and require draining/over-pumping.

Tank 6B – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

Tank 7A – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

Tank 7B – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

Tank 8A – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

Tank 8B – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 25% 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	0.004	ppm	13:22
Monitor 2	0.000	ppm	13:22
Monitor 3	0.000	ppm	13:22
Monitor 4	0.000	ppm	13:22
Monitor 5	0.004	ppm	13:22
Monitor 6	0.000	ppm	13:23
Monitor 7	0.004	ppm	13:23
Monitor 8	0.003	ppm	13:23
Monitor 9	0.003	ppm	13:23
Monitor 10	0.000	ppm	13:23
Monitor 11	0.000	ppm	13:23
Monitor 12	0.004	ppm	13:23
Monitor 13	0.000	ppm	13:23
Wind Speed	6.3	mph	13:23
Wind Direction	75.0°		13:23

Odour Log (Thames):

Thursday 25th March 2021:

DAY SHIFT:

AM:

Temp: Cool.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

PM:

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Friday 26th March 2021:

DAY SHIFT:

AM:

Temp: Cool.

Weather: Rain W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT:

PM:

Temp: Cool.

Weather: Patchy Rain.

All OMU's in use.

Time: 05:30.

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

Operational issues / causes observed: Blank.

Saturday 27th March 2021:

DAY SHIFT

AM:

Temp: Warm.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT

PM:

Temp: Cool.

Weather: Overcast night.

All OMU's in use.

Time: 05:30.

Observations / Customer Complaint: OM5 spiked at 20:34- 20:50 max 0.016.

Operational issues / causes observed: No odour source found.

Sunday 28th March 2021:

DAY SHIFT

AM:

Temp: Cool.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

NIGHT SHIFT

PM:

Temp: Cool.

Weather: Overcast night.

All OMU's in use.

Time: 05:30.

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

Operational issues / causes observed: Blank.

Monday 29th March 2021:

DAY SHIFT

AM:

Temp: Warm.

Weather: Sunny.

All OMU's in use.

Time: 17:30.

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

Operational issues / causes observed: Blank.

NIGHT SHIFT:

PM:

Temp: Cool.

Weather: Overcast night.

All OMU's in use.

Time: 05:30.

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

Operational issues / causes observed: Blank.

Tuesday 30th March 2021:

DAY SHIFT

AM:

Temp: Warm.

Weather: Sunny.

All OMU's in use.

Time: 17:30.

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

Operational issues / causes observed: Blank.

NIGHT SHIFT

PM:

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations / Customer Complaint: OM5 0.015 @ 22-05 – 22-34, OM3 0.018 @ 00:03 – 00:18, OM2 0.021 @ 02:23 - 02:38, OM5 0.021 @02:48 – 03:04, OM10 0.059 @22:50 – 23:22, OM10 0.089 @ 23:38 – 00.53, OM10 0.045@01:23- 01:52, OM10 0.036 @ 03:22 – 05:22.

Operational issues / causes observed: No odour source found.

Wednesday 31st March 2021:

DAY SHIFT

AM:

Temp: Warm.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations / Customer Complaint: OM5 spiked to max 0.025ppm 07:48 – 08:34 OM8 spiked to max 0.019ppm 08:07 – 09:04.

Operational issues / causes observed: No obvious odours found.

NIGHT SHIFT

PM:

Temp: Warm.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations / Customer Complaint:

OM5 0.048 @ 20:49 – 22:20, OM3 0.038 @ 22:02 – 22:17, OM3 0.023 @22:33 – 23:02, OM5 0.015 @ 23:20 – 00:18, OM5 0.015 @ 23:20 00:18, OM50.042 @ 00:34 – 01:19, OM5 0.038 @ 01:35 – 02:04, OM7 0.017 @21:48 -22:02, OM8 0.022 @ 22:07 – 22:22, OM12 0.055 @ 00:06 – 00:37, OM8 0.033 @ 00:35 – 01:05, OM9 0.021 @ 01:49 – 02:18.

Operational issues / causes observed: OM3 aeration units on E-battery, OM5 site drains, OM7 and 12 PAS area, OM9 – Digester area.

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m³					
OMP limit	500					
24/03/2021	0	1266	1054	2320	3059	5379
26/03/2021	0	1841	993	2834	2242	5076
29/03/2021	0	885	1406	2291	2722	5013

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 - Was in service had a weak seal. No evidence of spill.

Digester 6 - Out of use.

Digester 7 - Was in service had a weak seal. No evidence of spill.

Digester 8 - Was in service had a weak seal. No evidence of spill.

Digester 9 - Was in service had a weak seal. No evidence of spill.

Digester 10 - Was in service had a weak seal. No evidence of spill.

Digester 11 - Was in service had a weak seal. No evidence of spill.

Digester 12 - Was in service had a weak seal. No evidence of spill.

Digester 13 - Was in service had a weak seal. No evidence of spill.

Digester 14 - Was in service had a weak seal. No evidence of spill.

Digester 15 - Out of use.

Digester 16 - Was in service had a weak seal. No evidence of spill.

Digester 17 - Was in service had a weak seal. No evidence of spill.

Digester 18 – Out of use.

Digester 19 – Out of use.

Digester 20 - Was in service had a 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

1x large open grit skip (empty), 1x 16 yard grit/rag skip (covered with tarpaulin) & 1x 8 yard 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 & 11 in use, Number 12 drained down.

Pasteurisation Plant

Eight streams running.

New Works (West Side)

Feed Channel for Aeration Lanes 100% obstructed – requires jetting.
Large thick crust evident across majority of tank.

Odour Control Unit (OCU) performance monitoring – 30/03/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.04 0.00 0.02	0.2	Yes
East OCU	61.79 78.18 65.26	0.05	No
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	1.021 1.017 1.026	0.6	No
Transfer PS inlet	1.116 1.119 1.120	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00	0.5	Yes

	0.00 0.00		
Pasteurisation Plant (OCU12)	2.036 2.031 2.019	0.5	No