



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 03rd November 2020

Attendees: Mr L. Phillips and Mr Tom Costin (Thames Water) Time: 14:15

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A - Tank empty clean – Hoppers 1 & 2 drained to lowest point, hopper 3 full and requires draining / over pumping.</p> <p>Tank 1B - Tank empty clean – All hoppers full and require draining / over pumping.</p> <p>Tank 2A - Tank empty clean – All hoppers full and require draining / over pumping.</p> <p>Tank 2B - Tank empty clean – All hoppers empty and drained to lowest point.</p> <p>Tank 3A - Tank empty clean – All hoppers empty and drained to lowest point.</p> <p>Tank 3B - Tank returning during the inspection.</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 working.</p>	

Tank 6A - Tank empty clean – All hoppers empty and drained to lowest point.

Tank 6B - Tank empty – recently returned – 100% of tank covered by sludge – requires further flushing – All hoppers – requires draining/over-pumping.

Tank 7A - Tank full – Amajets in use.

Tank 7B - Tank full – Amajets in use.

Tank 8A - Tank empty and flushed clean – All hoppers full – tank back-filling - requires draining / over pumping.

Tank 8B - Tank empty – recently returned – All hoppers full – tank back-filling - 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 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	0.007	ppm	15:02
Monitor 2	0.004	ppm	15:02
Monitor 3	0.000	ppm	15:02
Monitor 4	0.007	ppm	15:02
Monitor 5	0.005	ppm	15:02
Monitor 6	0.004	ppm	15:02
Monitor 7	0.007	ppm	15:03
Monitor 8	0.009	ppm	15:03
Monitor 9	0.006	ppm	15:04
Monitor 10	0.003	ppm	15:04
Monitor 11	0.006	ppm	15:04
Monitor 12	0.007	ppm	15:05
Monitor 13	0.006	ppm	15:05
Wind Speed	110.170	mph	15:05
Wind Direction	258.950		15:05

Odour Log (Thames):

Wednesday 28th October 2020:

DAY SHIFT:

Temp: Cold.

Weather: Cloudy W/ sunny spells.

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: Cool.

Weather: Overcast 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.

Thursday 29th October 2020:

DAY SHIFT:

Temp: Warm.

Weather: Rain W/ Sunny spells.

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: Cool.

Weather: Overcast night.

Odour Readings: All OMU's in use.

Time: 05:30.

Observations / Customer Complaint: Found or reported.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Friday 30th October 2020

DAY SHIFT:

Temp: Warm.

Weather: Cloudy.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM1 at 10:37 till 11:35max
0.018ppm.

Operational issues / causes observed: Storm tanks need cleaning.

Actions Taken: Skips washed down.

NIGHT SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Saturday 31st October 2020

DAY SHIFT:

Temp: Blank.

Weather: Blank.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM6 @ 15:35 – 15:36max
0.022ppm.

Operational issues / causes observed: PAS area quite odorous.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cold.

Weather: Overcast night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Sunday 1st November 2020:

DAY SHIFT:

Temp: Cool.

Weather: Rain.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: All storm tanks in use but
partially returned.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cold.

Weather: Overcast night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Monday 2nd November 2020

DAY SHIFT

Temp: Cool.

Weather: Cloudy W/Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM3 spiked at 09:40 – 10:40
03017ppm.

Operational issues / causes observed: No odours found in vicinity.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM3 0.021 19:38 – 19:53.
Om4 0.016 19:10 – 20:03.

Operational issues / causes observed: No source found.

Actions Taken: Blank.

Tuesday 3rd November 2020

DAY SHIFT:

Temp: Cool.

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.

Action Taken: .Blank

NIGHT SHIFT:

Temp: Cold.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM5 19:03 – 19:32 Max

0.018ppm.

Operational issues / causes observed: Area checked around monitor
no obvious odours detected.

Actions Taken: Blank.

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					
28/10/2020	0	642	595	1237	608	1845
30/10/2020	117	703	595	1415	912	2327
02/11/2020	117	328	595	1040	304	1344

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. 6” below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 6 - In use – seal level approx. 6” below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 7 - In use – seal level approx. 6” below coping stones – seal

weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 9 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

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

Digester 13 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling vigorously – evidence of previous spill requiring anti-foam and clean-up.

Digester 14 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 17 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 18 - Out of use.

Digester 19 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 20 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at the time of inspection.

Imported Sludge

Average of ten (10) 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 12 yard skip containing general waste in Service Road at rear of Sludge Screen House.

1x enclosed container skip (empty) by circular PST's

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

Pasteurisation Plant

Nine streams running.

New Works (West Side)

Feed Channel for Aeration Lanes completely clear.

“Fluffy” coverage across surface and quantity of material bypassing screener has reduced.

Odour Control Unit (OCU) performance monitoring – 28/10/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	3.10 0.00 0.00	0.2	Yes
East OCU	6.84 6.79 6.74	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	2.78 2.64 2.55	0.6	No	
Transfer PS inlet	1.13 0.38 0.32	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes	
New West inlet (OCU11)	1.97 1.33 0.15	0.5	Yes	
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes	