



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 5 th January 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 slight grit at the end of the tank located at the hopper end. All hoppers full and require over-pumping.</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. All hoppers drained down to lowest point.</p> <p>Tank 2B – 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 3A – Tank empty recently returned slight grit build up at hopper end of the tank, requires further flushing. Hoppers 2 & 3 drained to lowest point. However, hopper 1 full and requires over-pumping.</p> <p>Tank 3B – Tank empty slight grit at the end of the tank located at the hopper end. All hoppers full and require over-pumping.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were</p>	

all in use - unable to gauge condition as lighting system still not working.

Tank 6A – Tank full.

Tank 6B – Tank full.

Tank 7A – Tank full but in process of being returned, all Amajets in use.

Tank 7B – Tank empty and had recently been returned. However, the whole of the tank was covered by grit and requires further flushing. All Hoppers full and require over-pumping.

Tank 8A – Tank empty and had recently been returned, around half of the tank surface covered by grit tank requires further flushing. All hoppers were full and required over-pumping.

Tank 8B – Tank empty and had recently been returned, around half of the tank surface covered by grit tank requires further flushing. All hoppers were full and required over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 30% 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	14:09
Monitor 2	0.003	ppm	14:09
Monitor 3	0.000	ppm	14:09
Monitor 4	0.005	ppm	14:10
Monitor 5	0.004	ppm	14:10
Monitor 6	0.000	ppm	14:10
Monitor 7	0.000	ppm	14:10
Monitor 8	0.005	ppm	14:10
Monitor 9	0.000	ppm	14:11
Monitor 10	0.000	ppm	14:11
Monitor 11	0.000	ppm	14:11
Monitor 12	0.000	ppm	14:11
Monitor 13	0.000	ppm	14:11
Wind Speed	7.520	mph	14:11
Wind Direction	22.187		14:11

Odour Log (Thames)

Wednesday 30th December 2020

DAY SHIFT

Temp: Cold.

Weather: Cloudy.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM8 spiked between 1414 - 14:26 but less than 15 mins duration 0.21ppm max.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Freezing.
Weather: Clear 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.

Thursday 31st December 2020

DAY SHIFT:

Temp: Cold.
Weather: Clear night.
Odour Readings: All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint: No odour issues.
Operational issues / causes observed: PAS drains were being flushed today. Odour got to control room but not monitors.
Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cold.
Weather: Clear night.
Odour Readings: All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint: OM8 0.017 4:16 – 4:28 less than 15 mins.
Operational issues / causes observed: Blank.
Actions Taken: Blank

Friday 1st January 2021

DAY SHIFT

Temp: Cold.
Weather: Cloudy.
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: No odour issues.
Operational issues / causes observed: Blank.
Actions taken: Blank.

Saturday 2nd January 2021

DAY SHIFT:

Temp: Cold.
Weather: Sunny W/ Patchy cloud.
Odour Readings: All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint: No odour spikes.
Operational issues / causes observed: Odour complaint received from Heathfields South at 15:24 odour monitors showed 0.006 max from 8, 9 and 4 monitors, wind direction was 344 speed between 0-5MPH.
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 found or reported.
Operational issues / causes observed: Blank.
Actions taken: Blank.

Sunday 3rd January 2021

DAY SHIFT:

Temp: Cold.
Weather: Rain.
Odour Readings: All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint: No odour spikes.
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: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Monday 4th January 2021

DAY SHIFT:

Temp: Cold.

Weather: Cloudy.

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: Cold.

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.

Tuesday 5th January 2021

DAY SHIFT:

Temp: Cold.

Weather: Cloudy.

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: Cold.

Weather: Rain.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour spikes.

Operational issues / causes observed: Blank.

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					
30/12/2020	0	1199	885	2084	912	2996
04/01/2021	0	1012	740	1752	1240	2992

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 out of service.

Digester 6 - In use but had weak seal, ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 7 - was in use, weak seal, no evidence of spill.

Digester 8 - was in use, weak seal, no evidence of spill.

Digester 9 - was in use, weak seal, ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 10 - was in use, weak seal, no evidence of spill.

Digester 11 - was in use, weak seal, ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 12 - was in use, weak seal, no evidence of spill.

Digester 13 - was in use, weak seal, no evidence of spill.

Digester 14 was in use, seal level approx. 3ft below coping stones, seal weak and bubbling; ongoing spill requiring anti-foam and clean-up

Digester 15 - was out of service.

Digester 16 - was in use, weak seal, no evidence of spill.

Digester 17 - was in use, weak seal, no evidence of spill.

Digester 18 - was out of service.

Digester 19 - was out of service.

Digester 20 – was in use, weak seal, no evidence of spill.

GENERAL

Sludge Screening House

Doors open at the time of inspection – contractors on site working on screens.

Imported Sludge

Average of 12 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 enclosed container skip (empty) and 1x large open skip (empty) 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 and out of use.

Pasteurisation Plant

Ten streams running.

New Works (West Side)

Feed Channel for Aeration Lanes completely obstructed – requires jetting.	

Odour Control Unit (OCU) performance monitoring – 05/01/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.170 24.95 23.35	0.2	Yes
East OCU	0.00 0.00 0.00	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	1.982 0.284 0.217	0.6	Yes
Transfer PS inlet	8.191 9.475 9.831	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	37.14	0.5	No

	30.75 33.55		
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes