



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 16th November 2021

Attendees: Mr Steven Maunders and Ms Caitlin Simmonds (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A – Tank empty – 20% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 60% full, Hoppers 2 & 3 approx. 10% full – requires draining/over-pumping.

Tank 1B – Tank empty – approx. 40% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 20% full – requires draining/over-pumping.

Tank 2A - Tank empty – 30% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 40% full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.

Tank 2B – Tank empty – Approx. 30% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 40% full – requires draining/over-pumping.

Tank 3A – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 30% full – requires draining/over-pumping.

Tank 3B – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers 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 backfilling with clean effluent water – approx. 60% – requires draining - All Hoppers full – requires draining/over-pumping.

Tank 6B – Tank empty – 40% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

Tank 7A – Tank backfilling – approx. 80% – requires draining - All Hoppers full – requires draining/over-pumping.

Tank 7B – Tank empty – 80% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

Tank 8A – Tank backfilling and approx. 60% of surface of tank covered All Hoppers full.

Tank 8B – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 10% 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	13:47
Monitor 2	.001	ppm	13:47
Monitor 3	.000	ppm	13:47
Monitor 4	.006	ppm	13:47
Monitor 5	.007	ppm	13:47
Monitor 6	.000	ppm	13:47
Monitor 7	.003	ppm	13:47
Monitor 8	.006	ppm	13:47
Monitor 9	.004	ppm	13:47
Monitor 10	.004	ppm	13:47
Monitor 11	.000	ppm	13:47
Monitor 12	.004	ppm	13:47
Monitor 13	.004	ppm	13:47
Wind Speed	3.5	mph	13:47
Wind Direction	187°		13:47

Odour Log (Thames):

Monday 8th November 2021:

PM – Cod – Clear Night.

All Omu's in use.

Observations/Complaints: "OM5 max 0.022ppm 3 times."

Operational Issues/Causes: "Smell from PAS".

Actions: "PAS over-flows checked – all OK".

Tuesday 9th November 2021:

AM – Cool – Sunny with patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM5 0.016 7:36-7:51."

Operational Issues/Causes: "Smell from sewer vent on drive".

Actions: No data.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 spiked as 23:07-23:36 max 0.015ppm."

Operational Issues/Causes: "Sewer venting through drain on main drive".

Actions: No data.

Wednesday 10th November 2021:

AM – Cool – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 19:50-20:05 max 0.017ppm & 04:05-05:05 max 0.015ppm."

Operational Issues/Causes: "Odour coming from manhole on main drive".

Actions: No data.

Thursday 11th November 2021:

AM – Cool – Sunny with patchy Clouds.

All OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Overcast Night.

All OMU's in use.

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

Operational Issues/Causes: No data

Actions: No data.

Friday 12th November 2021:

AM – Cool – Patchy Rain.

All OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM8 0.017 4:07-4:14, 0.018 4:49-5:03."

Operational Issues/Causes: "Some smell coming from PAS area."

Actions: No data.

Saturday 13th November 2021:

AM – Cool - Cloudy.

All OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Sunday 14th November 2021:

AM – Cool – Cloudy.

All OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Monday 15th November 2021:

AM – Cool – Sunny with patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "No odour issues."

Actions: No data.

Tuesday 16th November 2021:

AM – Cool – Sunny with patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "No odour issues."

Actions: No data.

PM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "OM5 peaked to 0.021ppm 19:20-20:20."

Operational Issues/Causes: "Some smell coming from drain on main drive."

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					
10/11/21	0	1466	1218	2684	760	3444
12/11/21	0	1218	1030	2248	760	3008
15/11/21	0	1091	1218	2309	760	3069 (TW figure 2869)

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 - Out of use.

Digester 6 - In use – seal level approx. 6” below coping stones – seal weak and bubbling.

Digester 7 - In use – seal level approx. 18” below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 18” below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

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 – Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

Digester 12 - In use – seal level approx. 5ft below coping stones – good seal.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 14 - In use – seal level approx. 5ft below coping stones - seal weak and bubbling.

Digester 15 - Out of use.

Digester 16 - In use – seal level approx. 4ft below coping stones – seal weak and bubbling vigorously – 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 – good seal.

Digester 18 - Out of use.

Digester 19 - In use – seal level approx. 4ft below coping stones – good seal.

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

GENERAL

Sludge Screening House

Roller shutter doors open at the time of inspection – other doors closed. Pump removed/replaced covered in sludge and awaiting removal from site.

Imported Sludge

No data.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

Pasteurisation Plant

No data.

Skips

2x small (blue) skips full of rag/grit – requires covering/emptying – rear of sludge screen house.

1x open container grit skip (50 % full) uncovered, 1x open container skip – General Waste (full), 1x 8-yard General Waste skip (full) – has been in situ for some time and leachate coming from bottom of skip in Service Road by PST's 71-78. New signage added to skip area to clearly identify skip contents.

1x enclosed container skip (50% full) in Service Road at rear of Sludge Screen House.

1x enclosed container skip (empty) in Service Road alongside PST's 9-12.

East Side Raw Sludge Screen House

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

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.

New Works (West Side) Battery E

Feed Channel for Aeration Lanes – recently jetted and all Lanes clear. Tank performance progressively improving. 2x rag deposits left on gangway – have been in situ for weeks – requires removal.

Odour Control Unit (OCU) performance monitoring – 16/11/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.02	0.05	Yes

	0.00 0.04		
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	0.016 0.012 0.008	0.6	Yes
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.07 0.05 0.08	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown