



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 8 th December 2020	
Attendees: Mr Steven Maunders 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 - approximately 5% of tank covered by grit – requires further flushing – Hoppers 1 & 2 approx. 20% full, Hopper 3 approx. 75% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 25% of tank covered by sludge and grit – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned - 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 40% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full.</p> <p>Tank 3B – Tank empty – recently returned – approximately 75% of</p>	

tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 90% 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 full.

Tank 6B – Tank full.

Tank 7A – Tank empty – recently returned - 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned - 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 40% full – requires draining/over-pumping.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8B – Tank empty – recently returned – approximately 75% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 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	13:28
Monitor 2	-005	ppm	Offline
Monitor 3	.000	ppm	13:28
Monitor 4	.004	ppm	13:28
Monitor 5	.004	ppm	13:28
Monitor 6	.004	ppm	13:28
Monitor 7	.004	ppm	13:28
Monitor 8	.004	ppm	13:28
Monitor 9	.000	ppm	13:28
Monitor 10	.000	ppm	13:28
Monitor 11	.000	ppm	13:28
Monitor 12	.000	ppm	13:28
Monitor 13	.000	ppm	13:28
Wind Speed	4.3	mph	13:28
Wind Direction	217°		

Odour Log (Thames):

Wednesday 2nd December 2020:

AM – Cold and Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Thursday 3rd December 2020:

AM – Cold and Rain.

All OMU's in use.

Observations/Complaints: "OM13 spiked at 12:15-13:15 max 0.017ppm."

Operational Issues/Causes: "PAS area odorous – Storm Tanks full – storming to river."

Actions: "Asked PAS Technician to check around Pasteurisation Plant."

PM – Cold and Rain.

All OMU's in use.

Observations/Complaints: "OM5 0.016ppm 00:36-01:35."

Operational Issues/Causes: "No issues observed on site, No Odour detected."

Actions: None noted.

Friday 4th December 2020:

AM – Cold and Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold and Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 5th December 2020:

AM – Cold and Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold Clear Night.

All OMU's in use.

Observations/Complaints: "NO odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 6th December 2020:

AM – Cold with Rain and Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 7th December 2020:

AM – Cold and Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold with Rain.

All OMU's in use.

Observations/Complaints: "OM5 @ 00:20 till 00:34 & 01:21 till 02:20 max 0.048ppm."

Operational Issues/Causes: "Main drive checked odour around low level sewer vent pipe. Flows high could be cause."

Actions: None noted.

Tuesday 8th December 2020:

AM – Cold and Cloudy with Sunny Spells.

OMU 2 offline - All other OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool with Rain.

OMU 2 offline - All other OMU's in use.

Observations/Complaints: "OM5 spiked at 18:15-19:15 max 0.015ppm."

Operational Issues/Causes: "No odours found in vicinity of OM5. OM2 turned off due to water ingress."

Actions: None noted.

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					
02/12/20	117	389	740	1246	912	2158
04/12/20	117	534	740	1391	1240	2631
07/12/20	117	389	740	1246	912	2158

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 – ongoing spill requiring anti-foam and clean-up.

Digester 6 - In use – seal level at surface of coping stones - ongoing spill requiring anti-foam and clean-up - Bell height high requiring draw down of Biogas.

Digester 7 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – 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 – ongoing spill requiring anti-foam and clean-up - 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. 6” below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

Digester 12 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 14 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 15 - Out of use.

Digester 16 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

Digester 17 - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 18 - Out of use.

Digester 19 - Out of use.

Digester 20 - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at the time of inspection.

Imported Sludge

Average of nine (9) 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 container skip containing general waste in Service Road at rear of Sludge Screen House.

1x enclosed container skip & 1x open 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, 10 & 12 in use, Number 11 drained down.

Pasteurisation Plant

Nine streams running.

New Works (West Side)

Feed Channel for Aeration Lanes completely obstructed – requires jetting.

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

Odour Control Unit (OCU) performance monitoring – 08/12/20

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.02 0.02 0.02	Unknown	Unknown
Main pumping station outlet	0.01 0.01 0.01	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00	0.05	Yes

	0.00			
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	0.00 0.00 0.00	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 0.01 0.00	0.5	Yes	
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes	