



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 13 th October 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 & 3 approx. 95% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed - approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned - approximately 85% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 25% full, Hoppers 2 & 3 approx. 85% 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>	

Tank 3B – Tank empty – recently returned – approximately 90% of 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 empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 35% full – requires draining/over-pumping

Tank 6B – Tank empty – recently returned – approximately 85% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 80% full – requires draining/over-pumping.

Tank 7A - Tank empty – recently returned - approximately 60% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned – approximately 75% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 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 80% of tank still covered with 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 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	.004	ppm	13:19
Monitor 2	.005	ppm	13:19
Monitor 3	.000	ppm	13:19
Monitor 4	.004	ppm	13:19
Monitor 5	.004	ppm	13:19
Monitor 6	.000	ppm	13:19
Monitor 7	.003	ppm	13:19
Monitor 8	.004	ppm	13:19
Monitor 9	.000	ppm	13:19
Monitor 10	.004	ppm	13:19
Monitor 11	.000	ppm	13:19
Monitor 12	.004	ppm	13:19
Monitor 13	.004	ppm	13:19
Wind Speed	6.1	mph	13:19
Wind Direction	335°		

Odour Log (Thames):

Wednesday 7th October 2020:

AM – Warm – Cloudy with Sunny Spells.

All OMU's in use.

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

Operational Issues/Causes: "Returning Storm Tanks."

Actions: None noted.

PM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

Thursday 8th October 2020:

AM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

PM – Cold - Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

Friday 9th October 2020:

AM – Cool – Rain with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

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.

Saturday 10th October 2020:

AM – Cool – Rain with Sunny spells?

All OMU's in use.

Observations/Complaints: "OM 0.019ppm 12:49-13:05."
Operational Issues/Causes: "Storm Tanks returning."
Actions: None noted.
PM – Cool - Overcast Night.
All OMU's in use.
Observations/Complaints: "OM3 spiked at 03:37-03:50 but <15 mins duration max 0.017ppm."
Operational Issues/Causes: None noted.
Actions: None noted.

Sunday 11th October 2020:

AM – Cool - Sunny with Patchy Clouds.
All OMU's in use.
Observations/Complaints: "OM5 0.047 from 16:10 to 16:25."
Operational Issues/Causes: "Odour from PAS."
Actions: None noted.
PM – Cold - Clear Night.
All OMU's in use.
Observations/Complaints: "OM2 spiked at 00:12 – 00:27 max 0.024ppm."
Operational Issues/Causes: "No odours found."
Actions: "East Inlet and surrounds checked."

Monday 12th October 2020:

AM – Cool - Rain.
All OMU's in use.
Observations/Complaints: "No odour issues."
Operational Issues/Causes: None noted.
Actions: None noted.
PM – Cool - Rain.
All OMU's in use.
Observations/Complaints: "No odour issues found or reported."
Operational Issues/Causes: None noted.
Actions: None noted.

Tuesday 13th October 2020:

AM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool - Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: None noted.

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					
07/10/20	39	824	595	1458	1440	2898
09/10/20	0	867	595	1462	1112	2574
12/10/20	0	412	305	717	1088	1805

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. 1ft below coping stones – good seal.

Digester 6 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 7 – Out of use – currently being brought back into service.

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. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 10 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 11 - In use – seal level approx. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 12 - In use – seal level approx. 3ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 14 – In use – seal level approx. 1ft below coping stones - seal weak and bubbling – noticeably gassing.

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

Digester 16 - In use – seal level approx. 2ft below coping stones - seal blown – ongoing vigorous spill requiring anti-foam and clean-up.

Digester 17 - In use – seal level approx. 18” below coping stones – good seal.

Digester 18 - Out of use.

Digester 19 - Out of use.

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 seven (7) 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 and 1x enclosed container skip (empty) in Service Road at rear of 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 21-24 approximately 50% blocked – requires jetting.

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

Odour Control Unit (OCU) performance monitoring – 07/10/20

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	6.10 5.18 4.83	0.2	No
East OCU	0.00 0.00 0.00	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	0.00 0.00	0.6	Yes

	0.00			
Transfer PS inlet	No data	Unknown	Unknown	
Transfer PS outlet	85.97 80.48 78.60	0.5	No	
New West inlet (OCU11)	4.23 3.78 3.38	0.5	No	
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes	