



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 5 th December 2019	
Attendees: Mr Steven Maunders and Mr Cliff Rumsey (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 30% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 90% full, Hoppers 2 & 3 approx. 75% full – requires draining/over-pumping – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty – approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 2 approx. 85% full, Hopper 3 full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty - approximately 30% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 60% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 75% full – requires draining/over-pumping.</p>	

Tank 3B – Tank empty - approximately 90% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 40% full – requires draining/over-pumping.

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working.

Tank 6A – Tank empty - approximately 30% of tank covered by grit/sludge – requires further flushing – Hoppers 1, & 3 approx. 60% full, Hopper 2 approx. 40% full – requires draining/over-pumping.

Tank 6B – Tank empty - - approximately 40% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 40% full - requires draining/over-pumping.

Tank 7A – Tank in use and in process of being retuned – All Amajets in use.

Tank 7B – Tank recently returned – approx. 60% of tank still covered with grit/sludge – Hoppers 1 & 3 empty, Hopper 2 approx. 40% full – requires draining/over-pumping.

Tank 8A – Tank empty - approximately 30% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hopper 2 approx. 90% full & Hopper 3 approx. 50% full – requires draining/over-pumping.

Tank 8B – Tank recently returned – approx. 80% of tank still covered with grit/sludge – Hoppers 1 & 2 full, Hopper 3 approx. 40% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 25% - 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) were unavailable for all of the monitors due to a failure of the Computer Server at the time of the inspection:

Monitor 1		ppm	
Monitor 2		ppm	
Monitor 3		ppm	
Monitor 4		ppm	
Monitor 5		ppm	
Monitor 6		ppm	
Monitor 7		ppm	
Monitor 8		ppm	
Monitor 9		ppm	
Monitor 10		ppm	
Monitor 11		ppm	
Monitor 12		ppm	
Monitor 13		ppm	
Wind Speed		mph	
Wind Direction			

Odour Log (Thames):

Thursday 28th November 2019:

AM – Cool – Cloudy.

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."

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 29th November 2019:

AM – Cold – 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: "OM2 0.016 22:17 – 22:23 less than 15 mins."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 30th November 2019:

AM – Cold – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "Complaint from Harvesters Close."

Operational Issues/Causes: None noted.

Actions: "Odour Suppression Unit" on E Battery inlets running. Day works jetting down around skips and pad (sic), Tech 1 checked area and no obvious odours detected."

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 1st December 2019:

AM – Cool – 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.

Monday 2nd December 2019:

AM – Cold – Sunny.

All OMU's in use.

Observations/Complaints: "OM4 0.016 @ 16:46 – 17:01."

Operational Issues/Causes: "Engine Exhaust. "

Actions: None noted.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 0.018 00:50 – 01:07; 0.023 04:13 – 04:35."

Operational Issues/Causes: "Area checked – no source found."

Actions: None noted.

Tuesday 3rd December 2019:

AM – Cold – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.058 @ 06:23; OM2 0.015 16:34 – 17:05."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 4th December 2019:

AM – Cool – Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Freezing – Overcast Night.

All OMU's in use.

Observations/Complaints: "O/M 2 peaked to max 0,03ppm 19:34 – 20:15."

Operational Issues/Causes: "Area checked. No obvious odours found. Wind direction from North."

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					
02/12/19	290	1285	267	1842	3858 (TW figure 3426)	5700 (TW figure 5263)
04/12/19	449	1574	618	2641	5857	8498

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. 4ft below coping stones – seal weak and bubbling.

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

Digester 7 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 8 - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

Digester 9 - In use – seal level approx. 6” below coping stones - seal weak and bubbling – evidence of recent dry spill requiring clean-up.

Digester 10 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 11 - In use – seal level approx. 2ft below surface of coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

Digester 12 - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

Digester 13 - In use – seal level approx. 6” below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 14 – Out of use – empty and clean – contractor on site undertaking maintenance.

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

Digester 16 - In use – seal level approx. 6” 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. 2ft below coping stones - seal weak and bubbling.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance.

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

seal weak and bubbling.

Digester 20 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

Access door open at time of inspection – closed by CR - All other doors closed at time of inspection.

Imported Sludge

Approx. 6 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 large open skip (1x (8 yard) open skip (containing rag covered with tarpaulin), 1x (8 yard) general waste skip & 1x covered skip (8 yard) located in Service Road by Storm Water Tanks.

1x partially filled small grit skips by Sludge Screening House.

1x empty open container skip in Service Road by PST's 9-12.

1x open 8 yard general waste skip by East Sludge Screening House.

Pasteurisation Plant

Pasteurisation plant 10 streams running.

East Side Raw Sludge Screen House

Doors open at time of inspection following skip changeover – closed by SM/CR. Drivers should be reminded of importance to close shutter on odour controlled building.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel – requires jetting.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 10, 11 & 12 in use. Tank 9 drained and out of use.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 completely clear.

“Fluffy” coverage across surface broken down completely since previous visit – visible churn across entirety of tank.

Odour Control Unit (OCU) performance monitoring – (03/12/19)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01	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	0.00 0.00 0.00	0.05	Yes	
Sludge reception inlet	No data	Unknown	Unknown	
Sludge reception outlet	No data	0.8	Yes	
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	0.6	Yes	
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	