



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 8 th August 2019	
Attendees: Mr Steven Maunders and Mr Manzoor Hussain (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 dried grit and sludge – requires flushing/hosing to remove. Hopper 1 approx. 75% full. Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty and flushed - approximately 10% of tank covered by dried grit – requires further flushing. Hoppers 1, 2 & 3 approx. 25% full.</p> <p>Tank 2A – Tank empty and flushed clean. Hoppers 1, 2 & 3 full pf effluent water - requires draining/over-pumping.</p> <p>Tank 2B – Tank empty and flushed - approximately 25% of tank covered by dried grit/sludge – requires further flushing. Hopper 1 approx. 80 full. Hoppers 2 & 3 approx. 40% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank being returned at time of inspection – all Amajets in operation.</p>	

Tank 3B – Tank empty and flushed - approximately 20% of tank covered by dried 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 and flushed clean. Hoppers 1, 2 & 3 approximately 25% full - requires draining/over-pumping.

Tank 6B – Tank empty and flushed clean. Hoppers 1, 2 & 3 approximately 25% full - requires draining/over-pumping.

Tank 7A – Tank empty – approx. 60% of tank covered by dried grit and sludge – requires further flushing/hosing to remove. Hoppers 1 & 2 full – requires draining/over-pumping. Hopper 3 drained down to bottom.

Tank 7B – Tank empty – approx. 80% of tank covered by dried grit and sludge – requires further flushing/hosing to remove. Hoppers 1, 2 & 3 drained down to bottom.

Tank 8A – Tank empty and flushed clean. Hopper 1 full, Hopper 2 approx. 95% full & Hopper 3 approx. 20% full.

Tank 8B – Tank empty – approx. 15% of tank covered by dried grit and sludge – requires further flushing/hosing to remove. Hoppers 1, 2 & 3 approximately 30% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was low – 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 of the monitors, which were providing data at time of inspection:

Monitor 1	0.000	ppm	13:34
Monitor 2	0.000	ppm	13:34
Monitor 3	0.000	ppm	13:34
Monitor 4	0.000	ppm	13:34
Monitor 5	0.000	ppm	13:34
Monitor 6	0.000	ppm	13:34
Monitor 7	0.003	ppm	13:34
Monitor 8	0.004	ppm	13:34
Monitor 9	0.004	ppm	13:34
Monitor 10	0.000	ppm	13:34
Monitor 11	0.004	ppm	13:34
Monitor 12	0.005	ppm	13:34
Monitor 13	0.000	ppm	13:34
Wind Speed	3.3	mph	
Wind Direction	237°		

Odour Log (Thames):

Thursday 1st August 2019:

AM – Warm – Sunny.

All OMU's in use.

Observations/Complaints: "No issues."

Operational Issues/Causes: "Digester spill."

Actions: "Area cleaned up."

PM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 2nd August 2019:

AM – Warm – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 3rd August 2019:

AM – Warm – Sunny with patchy clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted,"

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 0,019 17:38-17:55."

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 4th August 2019:

AM – Warm – Sunny with patchy clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Odour monitor 3 has red box round?"

Actions: "Job raised."

PM – Warm – Overcast night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted

Actions: None noted

Monday 5th August 2019:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.016ppm 09:38 – 09:45. OM3 0.015ppm 10:47 – 11:00."

Operational Issues/Causes: "Both spikes less than 15 minutes. No odour detected."

Actions: None noted

PM – Warm – Overcast night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Tuesday 6th August 2019:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.040ppm 09:02 – 09:23."

Operational Issues/Causes: "East Inlet Area checked. No odour detected."

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 7th August 2019:

AM – Warm – Sunny with patchy clouds.

All OMU's in use.

Observations/Complaints: "OM2 0,023ppm 06:24 – 07:36."

Operational Issues/Causes: "East Inlet checked. Confirmed all doors and covers closed. No odour detected."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM3 @ 19:45 0.054 for less than 15 minutes."

Operational Issues/Causes: "Area around PST 13 to 20 check – all OK."

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					
01/08/19	0	267	305	572	1568	2140
02/08/19	0	412	305	717	1744	2461
03/08/19	20	244	305	569	3748	4317

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. 2ft below coping stones - seal weak and bubbling.

Digester 7 - in use – seal level approx. 4ft below coping stones – good seal.

Digester 8- in use – seal level approx. 3ft below coping stones - seal weak and bubbling. Evidence of previous dried spill that requires clean-up.

Digester 9 - in use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 10 - in use – seal level approx. 2ft below coping stones - seal weak and bubbling. – Bell height high – requires draw down of biogas.

Digester 11 - in use – seal level approx. 1ft below surface of coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 2ft below coping stones – good seal.

Digester 13 - in use – seal level approx. 6” below coping stones – seal weak and bubbling - Evidence of previous dried spill that requires clean-up.

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 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 17 - in use – seal level approx. 2t below coping stones - seal weak and bubbling.

Digester 18 - in use – seal level approx. 2ft below coping stones - seal weak and bubbling. – Bell height high – requires draw down of biogas.

Digester 19 - in use – seal level approx. 3ft below coping stones - seal weak and bubbling. – Bell height high – requires draw down of biogas.

Digester 20 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at time of inspection.

Imported Sludge

Approx. 10 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). Green Algae on 100% of surface of Tank 74.

Skips

1x large open general waste skip, & 2x (8 yard) open skip (1x containing rag covered with tarpaulin) & 1x general waste located in Service Road by Storm Water Tanks.

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

Pasteurisation Plant

Pasteurisation plant 8, 9 & 10 currently out of service.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 75% obstructed in one channel – requires jetting.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues
Circular PST's 9, & 11 in use. Tanks 10 & 12 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. Quantity of sanitary items by-passing screener reduced significantly.

Odour Control Unit (OCU) performance monitoring – (06/08/19)

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	0.01 0.01 0.01	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
OCU 12 (Pasteurisation Plant)	0.01 0.01 0.01	0.5	Yes