



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 27 th July 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) 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 and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 20% of tank covered by dried grit - requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 30% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank empty and flushed - approximately 15% of tank covered by grit – requires further flushing. Hoppers 2 & 3 drained down to bottom level. Hopper 1 approximately 50% full - requires</p>	

flushing/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. Window hatch removed to enable access for over-pumping – requires replacement.

Tank 6A – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 20% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom.

Tank 7A – Tank empty and flushed clean - approximately 10% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 7B – Tank empty and flushed clean – approximately 15% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hopper 3 full of effluent water – surface of green algae. Hopper 1 drained down to bottom. Hopper 2 in process of being over-pumped.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 70% full of effluent water – surface of green algae.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge.

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 (although this contradicts Odour Log).

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.004	ppm	12:15
Monitor 2	0.004	ppm	12:15
Monitor 3	0.000	ppm	12:15
Monitor 4	0.000	ppm	12:15
Monitor 5	0.000	ppm	12:15
Monitor 6	0.000	ppm	12:15
Monitor 7	0.008	ppm	12:15
Monitor 8	0.004	ppm	12:15
Monitor 9	0.000	ppm	12:15
Monitor 10	0.000	ppm	12:15
Monitor 11	0.005	ppm	12:15
Monitor 12	0.000	ppm	12:15
Monitor 13	0.000	ppm	12:15
Wind Speed	6	mph	
Wind Direction	118°		

Odour Log (Thames) - Photocopies of log entries taken:

Thursday 19th July 2018:

AM – Hot - Sunny with patchy cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm - Clear Night.

All OMU's in use.

Observations: "No odour issues"

Actions: None noted.

Friday 20th July 2018:

AM – Warm – Cloudy with Sunny spells.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast Night.

OMU's 5, 10, 12 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Saturday 21st July 2018:

AM – Hot - Sunny with patchy cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast night.

OMU's 10 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Sunday 22nd July 2018:

AM – Warm – Sunny with patch cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted."

PM – Warm – Sunny with patch cloud.

OMU's 5, 11, 12 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Monday 23rd July 2018:

AM – Hot – Sunny

OMU - All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Clear night.

OMU's 10 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Tuesday 24th July 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Hot – Clear night.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Wednesday 25th July 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Hot – Clear night.

All OMU's in use.

Observations: "Screening skips."

Actions: "West new and old hosed down around skips."

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					
19/07/18	0	244	61	305	784	1089
23/07/18	39	801	0	840	1416	2256
25/07/18	0	244	0	244	1264	1508

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.

Digester 5 - in use – seal level approx. 3ft below coping stones – good seal - Evidence of previous spill now dried – requires clean-up.

Digester 6 - in use – seal level approx. 4ft below coping stones – good seal - Evidence of previous spill now dried – requires clean-up.

Digester 7 - in use – seal level approx. 3ft below coping stones – good seal – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 3ft below coping stones – good seal.

Digester 9 - in use – seal level approx. 1ft below coping stones – good seal.

Digester 10 - in use - seal level approx. 1ft below coping stones – good seal.

Digester 11 - in use – seal level approx. 1ft below coping stones – good seal.

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

Digester 13 - out of use – empty and clean – contractor on site undertaking maintenance.

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

Digester 15 - in use – seal level approx. 1ft below coping stones – good seal - Evidence of previous spill now dried – requires clean-up.

Digester 16 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 17 - in use – seal level approx. 2ft below coping stones – good seal.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal.

Digester 19 -- in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 20 - in use – seal level approx. 2ft below coping stones – good seal.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

2x full, 5x partially filled & 3x empty tanks of anti-foaming agent seen

positioned throughout area. Installation of “auto-dosing” for anti-foam agent to all digesters operational – currently using 2-3 tanks weekly.

GENERAL

Sludge Screening House

Shutter doors open at time of inspection.

Imported Sludge

Estimated average of ten 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 50% of surface of Tanks 73, 74 75 & 76.

Skips

1x empty open large skip and 2x large open empty general waste skips, 1x small skip covered with blue tarpaulin containing rag and grit positioned in service road by FST's 71-78.

1x empty small grit slips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

1x open skip in use for transfer materials from mobile screening plant located by Pasteurisation Plant.

East Side Screen House

All doors closed.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting. Hose being used on adjacent aeration lane leaking at high pressure – require repair. Dried ponded sludge accumulated along kerbside of adjacent Service Road – requires clean-up.

New Works (West Side)

Feed Channel for Aeration Lanes 21-25 totally obstructed – requires jetting.

Condition of Tanks have improved since last inspection - “fluffy” coverage across surface largely removed. Some quantity of physical detritus in tank still bypassing screener.

Remaining Repaired/Replaced plant containing traces of rag deposits removed from site.

Odour Control Unit (OCU) performance monitoring – (23/07/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000	Unknown	Unknown

	0.000 0.000		
Main pumping station outlet	0.000 0.000 0.000	0.2	Yes
East OCU	0.000 0.000 0.000	0.05	Yes
West inlet OCU	0.000 0.000 0.000	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	0.010 0.000 0.010		Unknown
Thickening plant outlet	0.000 0.000 0.000	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.000 0.000 0.000	0.6	Yes
New West inlet (OCU 11)	0.000 0.000 0.000	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000 0.000	0.5	Yes