



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 23 rd August 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 - approximately 80% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to 25% from bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 70% of tank covered by dried grit and sludge - requires further flushing. Hoppers 1, 2 & 3 drained down to 25% from 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 40% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 full of effluent water – surface of green algae.</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 10% of tank</p>	

covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to bottom level.

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 - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – 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 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 90% 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 1, 2 & 3 full of effluent water – surface of green algae.

Tank 8B – Tank empty and flushed - approximately 25% 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 10-15% - 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	0.000	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	0.000	ppm	12:15
Monitor 8	0.000	ppm	12:15
Monitor 9	0.000	ppm	12:15
Monitor 10	0.000	ppm	12:15
Monitor 11	0.000	ppm	12:15
Monitor 12	0.000	ppm	12:15
Monitor 13	0.000	ppm	12:15
Wind Speed	70	mph	
Wind Direction	300°		

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

Thursday 16th August 2018:

AM – Cool - Rain.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.
PM – Cool - Clear Night.
All OMU's in use.
Observations: "Monitor 1 – one spike 0.015ppm 15 min duration."
Actions: "No odour identified."

Friday 17th August 2018:

AM – Warm – Cloudy with Sunny spells.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.
PM – Cool – Clear Night.
OMU's 5, 10, 12 & 13 out of service. All other OMU's in use.
Observations: "No odour issues."
Actions: None noted.

Saturday 18th August 2018:

AM – Warm - Sunny with patchy cloud.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.
PM – Cool – Clear Night.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.

Sunday 19th August 2018:

AM – Warm – Sunny with patch cloud.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted."
PM – Cool – Clear Night.
All OMU's in use.
Observations: "No odour issues."

Actions: None noted.

Monday 20th August 2018:

AM – Hot – Sunny

OMU - 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.

Tuesday 21st August 2018:

AM – Very Hot – Sunny with patch cloud.

All OMU's in use.

Observations: "OM2 0.017 15:07-15:22."

Actions: "15 mins – no source found."

PM – Warm – Clear night.

All OMU's in use.

Observations: "OM No.2 Spiked at 03:25 but < 15 mins duration."

Actions: None noted.

Wednesday 22nd August 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast Night.

All OMU's in use.

Observations: "No odour issues."

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					
20/08/18	0	305	0	305	1449	1754
21/08/18	20	0	0	20	1601	1621
22/08/18	40	183	0	223	1440	1663

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. 4ft below coping stones – seal weak and bubbling

Digester 6 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling - Evidence of previous spill now dried – requires clean-up.

Digester 7 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 4ft below coping stones – seal

weak and bubbling – Bell height high – requires draw down of biogas.

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

Digester 10 – in use – seal level approx. 1ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

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

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

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. 3ft below coping stones – seal weak and bubbling - 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. 3ft 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. 2ft below coping stones – seal weak and bubbling.

Digester 20 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

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.

4x full, 4x partially filled & 2x 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 all closed 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 100% of surface of Tanks 73 & 74.

Skips

1x empty open large skip and 3x 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.

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

East Side Screen House

Doors open at time of inspection – skip being changed.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

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

Pasteurisation Plant

Plant 2 & 11 currently out of service. Plant 13, 14 & 16 being carbon filled. All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 50% obstructed in one channel – requires jetting. 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. Contractor on site to commence jetting at time of inspection.

Condition of Tanks has deteriorated since last inspection - “fluffy” coverage across surface increased. Some quantity of physical detritus in tank still bypassing screener.

Odour Control Unit (OCU) performance monitoring – (23/08/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000 0.000 0.000	Unknown	Unknown
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	No data		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	0.5	Yes