



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 4 th May 2021	
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 – Hopper 1 approx. 75% full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty – approximately 80% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty – approximately 25% of tank covered by grit and dried sludge – requires further flushing – Hopper 1 approx. 40% full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 60% of tank covered by grit and dried sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 30% full – requires draining/over-pumping.</p>	

Tank 3B – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 50% 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 – requires further flushing – Hoppers 1, 2 & 3 approx. 75% full – requires draining/over-pumping

Tank 6B – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

Tank 7A – Tank approx. 10% covered by effluent backfilling from return valve – Hoppers 1, 2 & 3 100% full - requires draining/over-pumping.

Tank 7B – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

Tank 8A – Tank approx. 60% covered by effluent backfilling from return valve – Hoppers 1, 2 & 3 100% full - requires draining/over-pumping.

Tank 8B – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 10% 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	.000	ppm	13:07
Monitor 2	.000	ppm	13:07
Monitor 3	.000	ppm	13:07
Monitor 4	.000	ppm	13:07
Monitor 5	.000	ppm	13:07
Monitor 6	.000	ppm	13:07
Monitor 7	.000	ppm	13:07
Monitor 8	.004	ppm	13:07
Monitor 9	.003	ppm	13:07
Monitor 10	.000	ppm	13:07
Monitor 11	.000	ppm	13:07
Monitor 12	.000	ppm	13:07
Monitor 13	.000	ppm	13:07
Wind Speed	20.0	mph	13:07
Wind Direction	282°		13:07

Odour Log (Thames):

Wednesday 28th April 2021:

AM – Warm – Cool – Rain with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

Thursday 29th April 2021:

AM – Warm – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM12 @ 20:55-21:09 max 0.016."

Operational Issues/Causes: "Digester area checked – All OK."

Actions: No data.

Friday 30th April 2021:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.021ppm 00:06-00:21 & 0.018ppm 20:36-21:05."

Operational Issues/Causes: "No odour in area detected."

Actions: "Odour suppression unit running in PAS area."

Saturday 1st May 2021:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM9 0.017 14:05-14:20."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.016ppm 00:52-00:06 <15 minutes."

Operational Issues/Causes: None noted.

Actions: No data.

Sunday 2nd May 2021:

AM – Warm – Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.024ppm 21:50-22:07, 0.016ppm 01:07-01:21, 0.025ppm 02:51-03:07."

Operational Issues/Causes: "Area checked. Strong smell of bio gas when siloxane plant was regenerating otherwise nothing out of the ordinary found."

Actions: No data.

Monday 3rd May 2021:

AM – Cool – Cloudy with Sunny Spells.

All OMU's in use.

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

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

Tuesday 4th May 2021:

AM – Cool – Cloudy with Sunny Spells.

All OMU's in use.

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

Operational Issues/Causes: None noted.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: No data.

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					
28/04/21	0	1200	1969	3169	2385	5554
30/04/21	0	885	1030	1915	2242	4157
03/05/21	0	1012	2530	3542	1777	5319

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. 2ft 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 - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously.

Digester 9 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 10 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

Digester 11 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 12 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

Digester 14 - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

Digester 15 – Out of use.

Digester 16 - In use – seal level approx. 2ft 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. 4ft below coping stones – seal weak and bubbling.

Digester 18 – Out of use.

Digester 19 – Out of use.

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

GENERAL

Sludge Screening House

Roller doors open at the time of inspection – other doors closed – contractors on site working on screens.

Imported Sludge

No 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 grit skip (full) – covered with tarpaulin, 1x 8 yard grit/rag skip (full) - covered with tarpaulin & 1x 8 yard general waste in Service Road at rear of Sludge 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

Seven streams running.

New Works (West Side)

Feed Channel for Aeration Lanes 100% obstructed – requires jetting.
 Large thick crust evident across majority of tank.

Odour Control Unit (OCU) performance monitoring – 04/05/21

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	36.78 35.81 37.91	0.05	No
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	1.021 1.017 1.022	0.6	No
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	0.00	0.5	Yes

	0.00 0.00		
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	11.98 11.37 11.21	0.5	No