



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 14th December 2021

Attendees: Mr Steven Maunders and Ms Caitlin Simmonds (Thames Water)

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty – 10% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 60% full, Hoppers 2 & 3 approx. 30% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty – approx. 25% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 50% full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 2A - Tank empty – 10% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – Approx. 30% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 90% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty – 100% of tank covered by grit and sludge – requires further flushing - Hopper 1 drained down to bottom, Hopper 2 approx. 50% full and Hopper 3 full – requires draining/over-pumping.</p>	

Tank 3B – Tank recently returned – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers 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 and flushed clean - Hoppers 1 & 2 approx. 50% full, Hopper 3 approx. 20% full – requires draining/over-pumping.

Tank 6B – Tank empty – 25% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hopper 2 approx. 60% full, Hopper 3 approx. 85% – requires draining/over-pumping.

Tank 7A – Tank backfilling – approx. 50% – requires draining - All Hoppers full – requires draining/over-pumping.

Tank 7B – Tank empty – 50% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

Tank 8A – Tank backfilling and approx. 20% of surface of tank covered All Hoppers full – requires draining/over-pumping.

Tank 8B – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 20% capacity – large deposits of grit/sludge throughout channel - 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	.004	ppm	13:44
Monitor 2	.001	ppm	13:44
Monitor 3	.004	ppm	13:44
Monitor 4	.004	ppm	13:44
Monitor 5	.005	ppm	13:44
Monitor 6	.005	ppm	13:44
Monitor 7	.000	ppm	13:44
Monitor 8	.007	ppm	13:44
Monitor 9	.000	ppm	13:44
Monitor 10	.004	ppm	13:44
Monitor 11	.005	ppm	13:44
Monitor 12	.000	ppm	13:44
Monitor 13	.005	ppm	13:44
Wind Speed	2.5	mph	13:44
Wind Direction	238°		13:44

Odour Log (Thames):

Wednesday 8th December 2021:

AM – Cool – Cloudy.

All OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Thursday 9th December 2021:

AM – Cool – Cloud.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "ABLE onsite calibrating monitors."

Actions: No data.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "OM8 0.016 01:34-01:49."

Operational Issues/Causes: "Some odour from PAS."

Actions: No data.

Friday 10th December 2021:

AM – Cold – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "ABLE onsite calibrating monitors."

Actions: No data.

PM – Cold – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM9 spiked to 0.020 @ 19:47 to 20:02."

Operational Issues/Causes: "Flare running at time, CHP No.3 being repaired."

Actions: "CHP Team working on engine now running."

Saturday 11th December 2021:

AM – Cold - Cloudy.

All OMU's in use.

Observations/Complaints: "OM5 0.019ppm 05:36-05:50."
Operational Issues/Causes: "Spike 15 minutes. No odour issues."
Actions: No data.
PM – Cold – Patchy Rain.
All OMU's in use.
Observations/Complaints: "No odour issues found or reported."
Operational Issues/Causes: No data.
Actions: No data.

Sunday 12th December 2021:

AM – Cool – Cloudy.
All OMU's in use.
Observations/Complaints: "No odour issues."
Operational Issues/Causes: No data.
Actions: No data.
PM – Cold – Clear Night.
All OMU's in use.
Observations/Complaints: "No odour issues found or reported."
Operational Issues/Causes: No data.
Actions: No data.

Monday 13th December 2021:

AM – Cool – Cloudy.
All OMU's in use.
Observations/Complaints: "No odour issues."
Operational Issues/Causes: No data.
Actions: No data.
PM – Cool – Cloudy.
All OMU's in use.
Observations/Complaints: "No odour issues found or reported."
Operational Issues/Causes: No data.
Actions: No data.

Tuesday 14th December 2021:

AM – Warm – Cloudy.
All OMU's in use.
Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.
Actions: No data.
PM – Cool – Clear Night.
 All OMU's in use.
Observations/Complaints: "OM5 0.017ppm 02:39-02:54."
Operational Issues/Causes "Nothing out of the ordinary happening on site."
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					
08/12/21	0	1781	885	2666	1088	3754
10/12/21	0	1780	885	2665	912	3577
13/12/21	0	1405	885	2290	912	3202 (TW figure 3777)

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 - Out of use – contractors on site working.

Digester 6 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 7 - In use – seal level approx. 2ft 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. 2ft below coping stones - seal weak and bubbling – Bell height high requiring 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. 2ft below coping stones - seal weak and bubbling.

Digester 11 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 12 - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

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

Digester 14 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 15 - Out of use.

Digester 16 - In use – seal level approx. 3ft 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 17 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 18 – Out of use.

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

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

GENERAL

Sludge Screening House

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

Imported Sludge

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).

East Side Raw Sludge Screen House

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

Pasteurisation Plant

Nine streams running.

Skips

2x small (blue) skips full of rag/grit – requires covering/emptying – rear of sludge screen house.

1x open container grit skip (5 % full) uncovered, 1x open container skip – General Waste (full), 1x 8-yard General Waste skip (covered). New signage added to skip area to clearly identify skip contents.

1x enclosed container skip (50% full) in Service Road at rear of Power House.

1x open 8-Yard skip (scrap metal) in Service Road by Pasteurisation Plant.

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.

New Works (West Side) Battery E

Feed Channel for Aeration Lanes – recently jetted and clear – Lane 22 beginning to accumulate. Tank performance progressively improving. 2x sprinkler heads replaced (old parts left by Tank – require removal).

Odour Control Unit (OCU) performance monitoring – 13/12/21

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	0.07 0.03 0.00	0.05	No
West inlet OCU	0.09 0.013 0.01	0.05	No
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	0.08 0.05 0.06	0.6	No
Transfer PS inlet	47.88 41.50 38.30	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown