



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 25th April 2023

Attendees: Mr Steven Maunders (London Borough of Hounslow) and Miss Emma McDonald (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A – Tank empty and flushed clean – All Hoppers full - requires draining/over-pumping.

Tank 1B – Tank empty – Approx. 40% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 60% full, Hopper 2 approx. 30% full, Hopper 3 approx. 95% full - requires draining/over-pumping.

Tank 2A – Tank in use – All Amajets operating.

Tank 2B – Tank in use – All Amajets operating.

Tank 3A – Tank in use – All Amajets operating.

Tank 3B – Tank in use – All Amajets operating.

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 in use – All Amajets operating.

Tank 6B – Tank in use – All Amajets operating.

Tank 7A – Tank in use – All Amajets operating.

Tank 7B – Tank in use – All Amajets operating.

Tank 8A – Tank backfilling (approx. 75%) – requires flushing and draining/over-pumping.

Tank 8B – Tank backfilling (approx. 50%) – remaining tank covered by grit and sludge – requires further flushing and draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 40% capacity.

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					
19/04/23	0	1733 (TW figure 1527)	824	2557	1896	4453 (TW figure 4247)
21/04/23	0	1716	1284	3000	1896	4896
24/04/23	0	1879	1429	3308	1568	4876

Complaints

The Council received no complaints by email from MRAG in the preceding week.

Thames Water controller advised that they had received no direct complaints in the preceding week.

The Council directly received no complaints by email in the preceding week.

The Council received no calls to the out of hours service.

Odour Monitors

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

Monitor 1	.005	ppm	14:01
Monitor 2	.001	ppm	14:01
Monitor 3	.004	ppm	14:01
Monitor 4	.000	ppm	14:01
Monitor 5	.004	ppm	14:01
Monitor 6	.006	ppm	14:01
Monitor 7	.000	ppm	14:01
Monitor 8	.007	ppm	14:01
Monitor 9	.004	ppm	14:01
Monitor 10	.005	ppm	14:01
Monitor 11	.004	ppm	14:01
Monitor 12	.006	ppm	14:01
Monitor 13	.003	ppm	14:01
Wind Speed	5.91	mph	14:01
Wind Direction	6.52°		14:01

Odour Log (Thames):

Wednesday 19th April 2023:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: “No odour issues found or reported.”

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: “No odour issues.”

Operational Issues/Causes: No data.

Actions: No data.

Thursday 20th April 2023:

AM – Warm – Sunny.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: “No odour issues found or reported.”

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Clear Night.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Friday 21st April 2023:

AM – Warm – Rain with Sunny Spells.

OMU 4 out of service - All other OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Clear Night.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Saturday 22nd April 2023:

AM – Warm – Sunny.

OMU 4 out of service - All other OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Patchy Rain.

OMU 4 out of service - All other OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

Sunday 23rd April 2023:

AM – Cool – Rain.

OMU 4 out of service - All other OMU's in use.

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

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Rain.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: "OM8 spike around Midnight but <15 mins duration max 0.016ppm."

Operational Issues/Causes: No data.

Actions: No data.

Monday 24th April 2023:

AM – Cool – Rain with Sunny Spells.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: “No odour issues found or reported.”

Operational Issues/Causes: No data.

Actions: No data.

PM – Cold – Rain.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: “OMU5 spiked at 22:30-23:47 max 0.020ppm.”

Operational Issues/Causes: “Odour coming from manhole on Main Drive during high flows to treatment.”

Actions: No data.

Tuesday 25th April 2023:

AM – Cool – Sunny.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: “No odour issues found or reported.”

Operational Issues/Causes: No data.

Actions: No data.

PM – Cool – Clear Night.

OMU 4 out of service - All other OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: No data.

Actions: No data.

Digesters

Digesters 1-4 – Out of use (permanent).

Digester 5 – In use – seal level approx. 6” below coping stones – Good Seal.

Digester 6 - In use – seal level approx. 1ft below coping stones – Good Seal. Bell height high requiring draw down of Biogas.

Digester 7 - In use – seal level approx. 1ft below coping stones - Seal weak and bubbling vigorously – Tank noticeably gassing off - Bell height high requiring draw down of Biogas. Ongoing spill requires anti-foam and clean-up.

Digester 8 - In use – seal level approx. 2ft below coping stones – Good Seal – Bell height high requiring draw down of Biogas. Evidence of previous spill requiring clean-up.

Digester 9 - In use – seal level approx. 2ft below coping stones – Good Seal.

Digester 10 - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling – Bell height high requiring draw down of Biogas. Ongoing spill requires anti-foam and clean-up.

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

Digester 12 - In use – seal level approx. 1ft below coping stones - Seal weak and bubbling.

Digester 13 – Out of use.

Digester 14 – Out of use.

Digester 15 – Out of use.

Digester 16 – Out of use.

Digester 17 - In use – seal level approx. 1ft below coping stones - Seal weak and bubbling.

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

Digester 19 - In use – seal level approx. 1ft below coping stones – Good Seal.

Digester 20 - In use – seal level approx. 18” below coping stones – Seal weak and bubbling.

GENERAL

Sludge Screening House

Small doors closed at time of inspection. Roller shutter recently replaced – small gap at top – flagged for further works.

Imported Sludge

There were 85m³ imports in 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) – no issues.

East Side Raw Sludge Screen House

Doors open 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 – all have large fat deposits on surface – requires hoses to break-up. Number 12 drained down (long term out of service).

New Works (West Side) Battery E

No issues.

Pasteurisation Plant

Streams 7, 8,10, 11 and 12 out of service.

Skips

2x small (blue) skips – rear of sludge screen house both empty – quantity of rag on ground in surrounding area that requires clean-up.

1x open container grit skip (empty) uncovered and 1x 10-Yard Rag skip (covered) at rear of Sludge Screening House.

1x 10-Yard enclosed General Waste skip in Service Road at rear of East Raw Sludge Screening House.

Odour Control Unit (OCU) performance monitoring – 25/04/23

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.050 0.052 0.050	0.2	Yes
East OCU	0.074 0.073 0.076	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	0.004 0.003 0.000	0.6	Yes
Transfer PS inlet	0.438 0.410 0.373	Unknown	Unknown
Transfer PS outlet	0.010 0.021 0.013	0.5	Yes
New West inlet (OCU11)	0.028 0.027 0.027	0.5	Yes
Pasteurisation Plant (OCU12)	0.874 0.863 0.848	0.5	No
GBT Plant OCU Outlet	0.003 0.000 0.000	Unknown	Unknown