



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 23rd May 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 – Hopper 1 approx. 90% full, Hopper 2 approx. 70% full, Hopper 3 approx. 60% 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 empty – Approx. 30% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 70% full, Hoppers 2 & 3 approx. 50% full.

Tank 2B – Tank empty – Approx. 70% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 95% full - requires draining/over-pumping.

Tank 3A – Tank empty – 80% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 65% full - requires draining/over-pumping.

Tank 3B — Tank recently returned – 75% 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 – Approx. 10% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 95% full - requires draining/over-pumping.

Tank 6B – Tank empty – Approx. 10% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 2 approx. 70% full and Hopper 3 approx. 95% full.

Tank 7A – Tank empty – 100% of tank covered with thick layer of grit and sludge – requires further flushing – All Hoppers approx. 95% full - requires draining/over-pumping.

Tank 7B – Tank empty – Approx. 80% of tank covered with thick layer of grit and sludge – requires further flushing – All Hoppers empty - requires draining/over-pumping.

Tank 8A – Tank empty - Approx. 70% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 full and Hopper 2 approx. 75% full - requires draining/over-pumping.

Tank 8B – Tank empty - 100% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 90% full and Hoppers 2 & 3 approx. 65% full - requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 10% 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					
17/05/23	Illegible	Illegible	Illegible	Illegible	Illegible	Illegible
19/05/23	0	1630	1200	2830	1720	4550
22/05/23	0	1340	1200	2540	1720	4260

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	.003	ppm	11:10
Monitor 2	.001	ppm	11:10
Monitor 3	.004	ppm	11:10
Monitor 4	.000	ppm	11:10
Monitor 5	.004	ppm	11:10
Monitor 6	.003	ppm	11:10
Monitor 7	.000	ppm	11:10
Monitor 8	.005	ppm	11:10
Monitor 9	.000	ppm	11:10
Monitor 10	.005	ppm	11:10
Monitor 11	.005	ppm	11:10
Monitor 12	.004	ppm	11:10
Monitor 13	.000	ppm	11:10
Wind Speed	3.18	mph	11:10
Wind Direction	41.7°		11:10

Odour Log (Thames):

Wednesday 17th May 2023:

AM – Warm – Sunny.

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

Observations/Complaints: "OM10 0.017ppm @ 14:21 <15 minute duration."

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 found or reported."

Operational Issues/Causes: No data.

Actions: No data.

Thursday 18th May 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 – Overcast Night.

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.

Friday 19th May 2023:

AM – Warm – Cloudy 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 – Cool – Clear Night.

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.

Saturday 20th May 2023:

AM – Warm – Cloudy 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 – Cool – Clear Night.

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 21st May 2023:

AM – Warm – Cloudy 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 – Cool – Clear Night.

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

Observations/Complaints: "OM11 spiked at 21:20-22:20 max 0.019ppm."

Operational Issues/Causes: No data.

Actions: No data.

Monday 22nd May 2023:

AM – Warm – Sunny.

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

Observations/Complaints: "No odour issues."

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: "OM10 spiked at 22:04-22:20 but <15 mins duration max 0.017ppm."

Operational Issues/Causes: No data.

Actions: No data.

Tuesday 23rd May 2023:

AM – Warm – Sunny.

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

Observations/Complaints: "No odour issues."

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. 3ft below coping stones – Good Seal.

Digester 6 - In use – seal level approx. 3ft below coping stones – Good Seal – although visible quantity of litter contained within seal. Bell height high requiring draw down of Biogas.

Digester 7 - In use – seal level approx. 4ft 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. 4ft 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. 1ft below coping stones – Good Seal.

Digester 10 - In use – seal level approx. 4ft 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. 3ft below coping stones – Seal weak and bubbling.

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

Digester 13 - In use – seal level approx. 4ft below coping stones – Good Seal – There is a faulty/damaged fan blade on air-handling plant affixed to this Tank – has potential to be off site noise nuisance – requires repair.

Digester 14 – Out of use.

Digester 15 – Out of use.

Digester 16 – Out of use.

Digester 17 - In use – seal level approx. 2ft below coping stones – Good Seal.

Digester 18- In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.

Digester 19 - In use – seal level approx. 4ft below coping stones – Good Seal.

Digester 20 - In use – seal level approx. 5ft below coping stones – Good Seal.

Nut missing from bracket on pipework at rear of Digesters 8 & 10 causing noise issue from vibration – requires replacement.

GENERAL

Sludge Screening House

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

Imported Sludge

There were 93m³ 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) – currently hoses being used to break up sludge on surface of all tanks.

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 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 – 23/05/23

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.015 0.015 0.015	0.2	Yes
East OCU	0.184 0.192 0.189	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	0.114 0.108 0.108	0.6	No
Transfer PS inlet	0.313 0.386 0.332	Unknown	Unknown
Transfer PS outlet	0.003 0.004 0.004	0.5	Yes
New West inlet (OCU11)	0.110 0.118 0.123	0.5	No
Pasteurisation Plant (OCU12)	1.511 1.486 1.475	0.5	No
GBT Plant OCU Outlet	0.000 0.000 0.000	Unknown	Unknown