



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 19 th September 2023	
Attendees: Mr L Phillips (London Borough of Hounslow) and Ms Emma McDonald (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty some vegetation in tank – All Hoppers full and require draining.</p> <p>Tank 1B – Tank empty 40% of tank covered by grit/sludge - Tank requires flushing – All Hoppers drained to lowest point.</p> <p>Tank 2A – Tank empty 30% of tank covered by grit/sludge - Tank requires flushing – Hopper 1 40% full, Hoppers 2 & 3 25% full and require draining.</p> <p>Tank 2B – Tank empty 75% of tank covered by grit/sludge - Tank requires flushing – All Hoppers 50% full and require draining.</p> <p>Tank 3A – Tank empty and flushed clean. All Hoppers approx. 60% full and require draining.</p> <p>Tank 3B — Tank empty and flushed – 30% of tank covered with sludge/grit – Tank requires flushing - All Hoppers full and require</p>	

draining.

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 - All Hoppers 80% full and require draining.

Tank 6B – Tank empty 10% of tank covered by grit/sludge – Tank requires flushing – All Hoppers approx. 40% full.

Tank 7A – Tank in use – All Amajets in operation as Tank being returned.

Tank 7B – Tank empty 100% of tank covered with thick layer of grit/sludge – Tank requires flushing – All Hoppers filled with sludge requires flushing.

Tank 8A – Tank empty 50% of tank covered by grit/sludge – Tank requires flushing – All Hoppers full and require draining.

Tank 8B – Tank empty and flushed 20% of tank covered by grit/sludge - Tank requires flushing – Hoppers 1 & 2 full and require draining – Hopper 3 drained to lowest point.

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					
13/09/23	137	1544	1200	2881	2898	5779

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 out of service 19/09/2023:

Monitor 1	-	-	-
Monitor 2	-	-	-
Monitor 3	-	-	-
Monitor 4	-	-	-
Monitor 5	-	-	-
Monitor 6	-	-	-
Monitor 7	-	-	-
Monitor 8	-	-	-
Monitor 9	-	-	-
Monitor 10	-	-	-
Monitor 11	-	-	-
Monitor 12	-	-	-
Monitor 13	-	-	-
Wind Speed	-	-	-
Wind Direction	-	-	-

Odour logs

Wednesday 13th September August 2023

DAY SHIFT

Temp. Hot.

Weather. Sunny W/ Patchy clouds.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 0.017 06:50 – 07:05.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Thursday 14th September 2023

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation

Time: 17:30

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank

Actions taken. Blank

NIGHT SHIFT

Temp. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Friday 15th September 2023

DAY SHIFT

Temp. Hot.

Weather. Sunny W/Patchy clouds.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 0.071 02:49 – 04:06.

0.040 00:34 – 02:20.

0.062 22:20 – 22:51.

0.103 20:49 – 21:45.

OM10 0.040 23:59 – 00:44.

0.025 23:16 – 23:31.

Operational issues / causes observed.

OCU 11 poor performance. High digester bell heights 2 CHP'S running.

Actions taken. Blank.

Saturday 16th September 2023

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked to max 0.025ppm during.

Operational issues / causes observed.

CHP 2 OOS being worked on by maintenance.

Actions taken.

Waste gas burner start level dropped to 27 metres.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 multiple spikes max 0.033.

Operational issues / causes observed.

OCU11 poor performance. High Digester heights.

Actions taken. Blank.

Sunday 17th September 2023

DAY SHIFT

Temp. Warm.

Weather. Rain W/ Sunny spells.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked to max 0.024ppm during day.

Operational issues / causes observed.

Area checked no source of odour found.

Actions taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 0.022 01:20 – 01:35.

0.051 19:34 – 20:06.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Monday 18th September 2023

DAY SHIFT

Temp. Warm.

Weather. Rain.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM8 0.017 22:20 22:37.

Operational issues / causes observed.

Same odour from PAS.

Actions taken. Blank.

Tuesday 19th September 2023

DAY SHIFT

Temp. Warm.

Weather. Cloudy.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No Odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Wednesday 20th September 2023

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Digesters

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

Digester 5 – In use –Good thick seal- No evidence of spillage.

Digester 6 - In use –Good thick seal- No evidence of spillage.

Digester 7 - In use –Good thick seal- No evidence of spillage.

Digester 8 - In use –Good thick seal- No evidence of spillage.

Digester 9 - In use –Good thick seal- No evidence of spillage.

Digester 10 - In use- Weak seal - No evidence of sludge spillage.

Digester 11 - In use –Good thick seal- No evidence of spillage.

Digester 12 - In use –Good thick seal- No evidence of spillage.

Digester 13 – Out of use.

Digester 14 – Out of use.

Digester 15 – Out of use.

Digester 16 – Out of use.

Digester 17 - In use –Good thick seal- No evidence of spillage.

Digester 18- In use- Weak seal - No evidence of sludge spillage.

Digester 19 - In use- Weak seal - No evidence of sludge spillage.

Digester 20 - In use- Weak seal - No evidence of sludge spillage.

Anti-foaming agent is in use, which TW advised was also being applied manually to all operational digesters.

GENERAL

Sludge Screening House

All doors open at time of inspection – Contractors on-site replacing screens.

Imported Sludge

72m³ 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 duck weed blooms on tanks 71, 73, 75 & 78.

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. Number 12 drained down (long term out of service).

New Works (West Side) Battery E

Inlet lane obstructed up to Aeration Lane 24 – requires hoses to break-up.

Pasteurisation Plant

Streams 3, 7, 8 and 10 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 (uncovered) – General Waste has been deposited within contaminating the load 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 – 21/09/2023:

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	0.012 0.012 0.012	0.05	Yes
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	0.024 0.024 0.025	0.6	Yes
Transfer PS inlet	9.773 9.930 8.839	Unknown	Unknown
Transfer PS outlet	0.010 0.007 0.006	0.5	Yes
New West inlet (OCU11)	0.045 0.048 0.048	0.5	No
Pasteurisation Plant (OCU12)	0.000 0.000 0.000	0.5	Yes
GBT Plant OCU Outlet	0.014 0.015 0.016	Unknown	Unknown