

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 5th September 2023 09:00 am

Attendees: Mr L Phillips (LB 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 slight grit in tank – Hoppers 1 and 3 full and require draining – Hopper 2 drained to lowest point.</p> <p>Tank 2A – Tank empty Hopper 1 50% full and requires draining – Hoppers 2 and 3 drained to lowest point.</p> <p>Tank 2B – Tank empty 30% of tank covered in grit/sludge- Hoppers 1 and 2 30% full and requires draining – Hopper 3 drained to lowest point.</p> <p>Tank 3A – Tank empty clean – All hoppers full and requires draining.</p> <p>Tank 3B – Tank empty clean – All hoppers full and requires draining.</p>	

Storm Feed Channel - The level of effluent in this feed channel was approx. 10% throughout the channels. The effluent looked brown and murky and bottomed out in places.

Tanks 4A, 4B, 5A & 5B All tanks are covered, and odour controlled. I was able to gauge the conditions which demonstrated the tanks as being full and in use.

Tank 6A – Tank empty clean- All hoppers full and require draining.

Tank 6B – Tank empty clean – Hopper 3 full – Hoppers 1 and 2 50% full and requires draining.

Tank 7A – Tank returning at time of inspection – All amajets were in operation.

Tank 7B – Tank empty 90% of tank covered in grit/sludge - Hoppers full of grit (Shallow Hoppers).

Tank 8A – Tank empty 30% of tank covered in grit/sludge -All Hoppers full and require draining.

Tank 8B – Tank empty 50% of tank covered in grit/sludge all hoppers full and require draining.

Storm Feed Channel - The level of effluent in this feed channel was approx. 10% throughout the channels. The effluent looked brown and murky and bottomed out in places.

Odour Monitors

The odour readouts (H₂S) for all monitors which were providing data at time of inspection 05/05/2023:

Monitor 1	0.000	ppm	08:37
Monitor 2	0.001	ppm	08:37
Monitor 3	0.000	ppm	08:37
Monitor 4	0.000	ppm	08:37
Monitor 5	0.000	ppm	08:37
Monitor 6	0.000	ppm	08:37
Monitor 7	0.000	ppm	08:38
Monitor 8	0.007	ppm	08:38
Monitor 9	0.000	ppm	08:38
Monitor 10	0.003	ppm	08:38
Monitor 11	0.000	ppm	08:38
Monitor 12	0.004	ppm	08:38
Monitor 13	0.000	ppm	08:38
Wind Speed	0.214	mph	08:38
Wind Direction	42.433°		

Odour logs

Wednesday 30th August 2023

DAY SHIFT

Temp. Warm.

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. Cool.

Weather. Clear Night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Thursday 31st August 2023

DAY SHIFT

Temp. Cool.

Weather. Cloudy W/ Sunny spells.

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.

OM3 0.018 – 23:08 – 23:22

Operational issues / causes observed.

OCU 11 poor performance.

Actions taken. Blank

Friday 1st September 2023

DAY SHIFT

Temp. Cool.

Weather. Rain W/Sunny spells.

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.

Saturday 2nd September 2023

DAY SHIFT

Temp. Warm.

Weather. Sunny W/ Patchy clouds.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 0.021 ppm 16:22 – 16:37.

Operational issues / causes observed.

No odour issues onsite.

Actions taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 peaked to 0.027ppm 21:23 – 22:23.

Operational issues / causes observed.

Area checked nothing of note found.

Actions taken. Blank

Sunday 3rd September 2023**DAY SHIFT**

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 spike 0.015ppm at 09:38 for 15min duration.

Operational issues / causes observed.

No odour issues onsite.

Customer contact received – odour complaint from Butterfield Close TW1 1DX. No odour issues on site.

Actions taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked to max 0.025ppm at 21:00 – 15min.

Operational issues / causes observed.

No odour issues onsite.

Actions taken.

Monday 4th September 2023

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

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. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked to max 0.049ppm 20:38 – 21:08.

Operational issues / causes observed.

Area checked nothing of note found.

Actions taken. Blank.

Tuesday 5th September 2023

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked at 0.015 max 12:23 – 12:36.

Operational issues / causes observed.

Area checked no odours found.

Actions taken. Blank

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation

Time: 05:30.

Observations / Customer Complaint.

OM3 0.027ppm 20:22 -20:53.

0.016ppm 21:21 – 22:23.

OM12 0.019ppm 00:30 – 01:00.

OM10 0.036ppm 01:55 – 02:46.

Operational issues / causes observed.

Digester bell height high. Digester 7 gassing off from sludge seal.

Actions taken.

Blank.

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					
30/08/2023	118	1442	1368	2928	3059	5987
01/09/2023	118	1485	1368	2971	2722	5693

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.

Imported Sludge

No indication of Imported sludge this week.

No.5 Pumping Station (West Side)

The doors and windows of No.5 pumping station were closed at the time of inspection.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably clean. No odours witnessed.

Raw Sludge Screening Building (West Side)

The large roller shutter doors of the Raw Sludge Screening building were open at the time of the inspection however it is still out of operation so not causing any issues of odour.

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

Final Settlement Tanks (East Side)

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.

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.

East Side Screen House

The blue doors closest to the main service road and the roller metal shutters were open at the time of the inspection.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel nearest the service road was clogged along 80% of its length.

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).

Pasteurisation Plant

Streams 3, 7, 8 and 10 out of service.

Section 106 agreement

There have been no breaches of the s106 agreement in the last week.

West Side Aeration Lanes

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery were all free-flowing between lanes 22-25 – At the time of inspection.

All the lanes in E Battery were distinct and dividing walls were all visible. All sprinklers were in operation at time of inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order. No offensive odours noticed.

Odour Control Unit (OCU) performance monitoring: 05/09/2023

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.023ppm 0.023ppm 0.023ppm Ave: 0.023ppm	0.2	Yes
East OCU	0.031ppm 0.031ppm 0.031ppm Ave: 0.031ppm	0.05	No
West inlet OCU	0.019ppm 0.020ppm 0.020ppm Ave: 0.019ppm	0.05	Yes
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not provided	0.8	Unknown
Thickening plant inlet	Not provided	Unknown	Unknown
Thickening plant outlet	0.036ppm 0.036ppm 0.036ppm Ave: 0.036ppm	0.6	Yes
New West inlet (OCU 11)	0.011ppm 0.020ppm 0.020ppm Ave: 0.017ppm	0.5	YES
Pasteurisation (OCU 12)	0.018ppm 0.018ppm 0.018ppm Ave: 0.018ppm	0.5	No
Transfer PS inlet	0.022ppm 0.022ppm 0.022ppm Ave: 0.022ppm	Unknown	Unknown

Transfer PS outlet	0.023ppm 0.006ppm 0.008ppm Ave: 0.012ppm	0.6	Yes	
GBT Plant OCU Outlet	0.027ppm 0.027ppm 0.027ppm Ave: 0.027ppm	Unknown	Unknown	