



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 13th July 2021 (13:30pm)

Attendees: Mr Z Kadri (London Borough of Hounslow), Mr D Grady (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was approx. 75% full and filling.
No Amajets were in operation.

Tank 1B was approx. 75% full and filling.
No Amajets were in operation.

Tank 2A was approx. 75% full and filling.
No Amajets were in operation.

Tank 2B was approx. 75% full and filling.
No Amajets were in operation.

Tank 3A was approx. 75% full and filling.
Amajets 1, 2 and 3 were all in operation.

Tank 3B was approx. 75% full and filling.
Amajets 1, 2 and 3 were all in operation.

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled.
Unable to gauge condition as lighting system still not working.

Tank 6A was approx. 75% full and filling.
Amajets 1, 2 and 3 were all in operation.

Tank 6B was approx. 75% full and filling.
No Amajets were in operation.

Tank 7A was approx. 75% full and filling.
No Amajets were in operation.

Tank 7B was approx. 75% full and filling.
No Amajets were in operation.

Tank 8A was approx. 75% full and filling.
No Amajets were in operation.

Tank 8B was approx. 75% full and filling.
No Amajets were in operation.

Storm Feed Channel - The level of effluent in both feed channels was at least 40% and was dark and murky but no signs of fatty deposits.

Complaints

The Council received no complaints by telephone in the preceding week.

The Council received 3 complaints by either email or the on-line web system in the preceding week.

On the 7th of July 2021 at approx. 17:19 LBH received an online complaint regarding odours from Mogden. The report was logged under **A17632**. The historic trends were reviewed from main control room at TWSW and there were no signs of any spikes at that time.

On the 8th of July 2021 at approx. 22:52 LBH received an online complaint regarding odours from Mogden. The report was logged under **A17687**. The historic trends were reviewed from main control room at TWSW and there were no signs of any spikes or unusual activity.

On the 9th of July 2021 at approx. 00:52 LBH received an online complaint regarding odours from Mogden. The report was logged under **A17689**. The historic trends were reviewed from main control room at TWSW and there were no signs of any spikes or unusual activity at that time.

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

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 13/07/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	14:12pm
Monitor 2	0.001	ppm	14:12pm
Monitor 3	0.000	ppm	14:12pm
Monitor 4	0.000	ppm	14:12pm
Monitor 5	0.000	ppm	14:12pm
Monitor 6	0.000	ppm	14:12pm
Monitor 7	0.000	ppm	14:12pm
Monitor 8	0.006	ppm	14:12pm
Monitor 9	0.003	ppm	14:12pm
Monitor 10	0.000	ppm	14:12pm
Monitor 11	0.000	ppm	14:12pm
Monitor 12	0.000	ppm	14:12pm
Monitor 13	0.000	ppm	14:12pm
Wind Speed	1.199	mph	14:12pm
Wind Direction	122.899		14:12pm

Odour Log (Thames)

Wednesday 7th July 2021

DAY SHIFT

Temp. Warm.

Weather. Patchy 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. Warm.

Weather. Overcast 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 8th July 2021**DAY SHIFT**

Temp. Warm.

Weather. Cloudy.

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 9th July 2021

DAY SHIFT

Temp. Warm.

Weather. Sunny with 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. No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Saturday 10th July 2021

DAY SHIFT

Temp. Warm.

Weather. Overcast night.

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/spikes.

Operational issues / causes observed.

Odour complaint from Weavers Close 23:40.

Actions taken.

Areas checked and East inlet skip area hosed down.

Sunday 11th July 2021

DAY SHIFT

Temp. Warm.

Weather. Sunny with 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. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 12th July 2021

DAY SHIFT

Temp. Warm.

Weather. Rain with sunny spells.

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. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

Spikes –

OM10- 0.018ppm 17:02-17:09

OM1- 0.017ppm 18:06-18:20 & again to 0.020ppm 18:35-18:50.

Operational issues / causes observed. Storm tanks filling.

Actions Taken. Blank.

Tuesday 13th July 2021

DAY SHIFT

Temp. Warm.

Weather. Cloudy with Sunny spells.

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. Cloudy.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Storm Tanks returning.

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 m³					
OMP limit	500					
07/07/2021	0	824	740	1564	760	2324
09/07/2021	0	740	885	1625	760	2385
12/07/2021	0	740	740	1480	760	2240

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.

Imported Sludge

There have been an average of 10 imports of sludge per day in the preceding week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably clean.

One of the two skips present was only part covered and both skips were virtually full and giving off odour. It was also noted that general rubbish and plastics had been dumped in both of these skips.

TW were advised they are frequently hosing this area down.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection due to ongoing maintenance by onsite contractors.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was out of service.

Digester 6 was in service and had a sludgy seal that was bubbling off gas.

Digester 7 was in service and had a very wet seal that was bubbling off gas, it was noted that the seal level was low (at least 2ft below the top of the coping stone). A spill had also taken place on the far side of the digester nearest the service Road that required cleaning up.

Digester 8 was in service and had dry seal that was slightly bubbling off minimal amounts of gas. The seal was 2ft below the coping stones. There were no signs of a previous spillage.

Digester 9 was in service and had dry seal that was slightly bubbling off minimal amounts of gas. The seal was 2ft below the coping stones. There were no signs of a previous spillage.

Digester 10 was in service and had a very thick sludgy seal that was bubbling off minimal amounts gas.

Digester 11 was in service and had a thick sludgy seal that was bubbling off minimal amounts gas. The seal was 2ft below the coping stone.

Digester 12 was in service and had a thick sludgy seal that was bubbling off minimal amounts gas. The seal was 2ft below the coping stone.

Digester 13 was in service and had a wet seal that was approx. 2ft below the coping stone.

Digester 14 was in service and had a wet seal that was approx. 2ft below the coping stone.

Digester 15 was out of service.

Digester 16 was in service and had a thick sludgy seal that was bubbling off minimal amounts gas.

Digester 17 was in service and had a thick sludgy seal that was bubbling off minimal amounts gas.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off gas, it was noted that the seal level was low approx. 2ft below coping stone.

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

GENERAL

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

All tanks were in operation at the time of the inspection and had 80% of the surface covered with algae. There was no evidence of fatty deposits

on the surface. The hose on the arm was rotating and clearing off any remaining deposits. The rainfall from the night before was likely to have cleared the majority of algae on the surfaces.

Skips

On the East side there two 14yds open skips.

One contained a small amount of general rubbish inert material and the other contained a small amount of green vegetation and tree branches. Both skips were uncovered and the tarpaulin cover was on the floor.

Also present was one 40yds closed bulk carrier that was closed. There was one 20yds open bulk carrier that contained grit, soil and one side of the carrier was open and grit spread across the floor, no tarpaulin cover was in place. I advised operative to clear up the grit and ensure skip is closed and covered.

There was one was one 14yds skip which was empty but half filled with rain water. The skip was located near No5 Pumping station on the West of the works.

On the West side there was one 40yds closed bulk carrier.

East Side Screen House

The doors at both ends of the screen house were open at the time of the inspection, TW advised staff were working inside.

No other issues appeared evident.

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 was clogged along 80% of its length, there was a significant number of weeds were growing out of it and through the steel grating.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.
TW advised no issues.

Circular PST's 9, 10 and 11 were all in use and had relatively fat free surfaces.

No other issues were evident with these tanks.

Circular PST 12 is currently out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 8 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes

All lanes are continuing to have biological issues, however surface movement was visible. Thick fluffy scum covered virtually the entire surface area of all lanes but the dividing walls were more visible than previously observed.

A number of the sprinklers were out of operation and floating debris was present in a number of areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was mostly free-flowing between lanes 22-25.

New Inlet Works (West Side)

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

Odour Control Unit (OCU) performance monitoring: 08/07/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.09 0.13 0.12	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not provided	0.8	Unknown
Thickening plant inlet	0.00 0.00 0.00	Unknown	Unknown
Thickening plant outlet	0.149 0.139 0.097	0.6	Yes
New West inlet (OCU 11)	0.097 0.095 0.091	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.060 0.058 0.062	Unknown	Unknown

Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	
GBT Plant OCU Outlet	0.059 0.057 0.051	Unknown	Unknown	