



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 30 th November (13:00pm)	
Attendees: Mr Z Kadri (London Borough of Hounslow), Caitlin Simmonds (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty slight grit across the surface. Hoppers 1 & 2 were full to the top and needed draining down. Hopper 3 was empty.</p> <p>Tank 1B was empty slight grit across the surface. Hoppers 1 & 2 were empty however Hopper 3 needed draining down.</p> <p>Tank 2A was empty however some wet patches of gritty sludge to the sides of the tank. Hoppers 1, 2 & 3 were 1/3 full and needed draining down.</p> <p>Tank 2B was empty however some wet patches of gritty sludge to the sides of the tank. Hoppers 1, 2 & 3 were 1/3 full and needed draining down.</p> <p>Tank 3A was empty however some wet patches of gritty sludge across the entire surface. Hoppers 1, 2 & 3 were completely full and needed draining down.</p> <p>Tank 3B was full of effluent and at approx. half of the tank was full of effluent. No Amajets were observed operating at the time.</p>	

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 entirely covered by effluent but not high enough for the Amajets to be in operation.

Tank 6B was empty however some wet patches of gritty sludge at the hopper end. All Hoppers were full to the top with effluent and needed draining down.

Tank 7A was empty but had a thick layer of sludge, grit and algae across the surface of the tank. Hoppers 1, 2 & 3 were in need of draining down – (Shallow hoppers).

Tank 7B was empty but had a thick layer of sludge, grit and algae across the surface of the tank. Hoppers 1, 2 & 3 were in need of draining down – (Shallow hoppers).

Tank 8A was mostly empty however dark colour effluent present at hopper end reaching half way across the tank.

Tank 8B was empty and had patches of thick sludge , algae and grit across the surface of the tank. Hoppers 1, 2 & 3 were 1/3 full and in need of draining down.

Storm Feed Channel - The level of effluent in both feed channels was low and bottomed out in places where thick grit islands were noticeable. In places the effluent looked murky and muddy but no signs of fatty deposits.

Complaints

The Council received 0 complaints by telephone in the preceding week.

The Council received 0 complaints via the on-line web system and no complaint via email in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 30/11/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:56pm
Monitor 2	0.001	ppm	13:56pm
Monitor 3	0.014	ppm	13:56pm
Monitor 4	0.006	ppm	13:56pm
Monitor 5	0.016	ppm	13:56pm
Monitor 6	0.000	ppm	13:56pm
Monitor 7	0.003	ppm	13:56pm
Monitor 8	0.008	ppm	13:56pm
Monitor 9	0.000	ppm	13:56pm
Monitor 10	0.004	ppm	13:56pm
Monitor 11	0.000	ppm	13:56pm
Monitor 12	0.005	ppm	13:56pm
Monitor 13	0.005	ppm	13:56pm
Wind Speed	12.070	mph	13:56pm
Wind Direction	254.188		13:56pm

Odour Log (Thames) needs

Wednesday 24th November 2021

DAY SHIFT

Temp. Cold.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed No odour issues.

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 25th November 2021

DAY SHIFT

Temp. Cold.

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. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in operation except OM5.

Time: 05:30.

Observations / Customer Complaint. OM5 spiked to 0.015ppm at 21:36-21:51.

Operational issues / causes observed. No odour issues found on site

Actions Taken. Blank.

Friday 26th November 2021

DAY SHIFT

Temp. Cold.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM5 spiked to 0.031ppm at 05:36-05:51, OM4 spiked to 0.015ppm at 16:19-16:34, OM8 spiked to 0.019ppm at 12:33–12:44 & again to 0.016 at 16:19-16:35.

Operational issues / causes observed. High digester bells heights as 2 chips running flaring and boilers on diesel.

Actions taken. Area checked.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation except OM8.

Time: 05:30.

Observations / Customer Complaint. OM8 spiked to 0.026ppm at 21:20–22:01.

Operational issues / causes observed. PAS area odorous – No evidence of sludge or spills or PAS stream venting.

Actions taken. Area checked.

Saturday 27th November 2021

DAY SHIFT

Temp. Cold.

Weather. Cloudy with 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. Cold.

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.

Sunday 28th November 2021

DAY SHIFT

Temp. Cold.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM8 spiked to 0.018ppm at 16:35–16:49.

Operational issues / causes observed. Some odour from PAS area.

Actions taken. Area checked

NIGHT SHIFT

Temp. Freezing.

Weather. Clear 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.

Monday 29th November 2021

DAY SHIFT

Temp. Cold.

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. Cold.

Weather. Clear Night.

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.

Tuesday 30th November 2021

DAY SHIFT

Temp. Cool.

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. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM5 spiked to 0.015ppm 17:52-18:05, OM3 spiked to 0.024ppm 04:40-04:54.

Operational issues / causes observed. No odour issues found on site – Both spikes lasted less than 15minutes.

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					
24/11/2021	0	1986	760	2746	1088	3834
29/11/2021	0	1780	1030	2810	1416	4226

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 **8 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. Slight unpleasant / offensive odour was noticeable.

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 House

The large roller shutter door of the Raw Sludge Screening building were CLOSED at the time of the inspection.

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 Out of service.

Digester 6 was in service and had a wet seal – No evidence of recent/previous sludge spillages.

Digester 7 was in service and had a low wet seal that was bubbling off gas, it was noted that the seal level was low 2ft below coping stone. A spill had also taken place on the far side of the digester nearest the service road that required cleaning up. This side was also noticeably erupting.

Digester 8 was in service and had a good low sludgy seal – No evidence of recent/previous sludge spillages.

Digester 9 was in service and had a good low sludgy seal – No evidence of recent/previous sludge spillages.

Digester 10 was in service and had a wet seal – No evidence of recent/previous sludge spillages.

Digester 11 was in service and had a good low sludgy seal – No evidence of recent/previous sludge spillages.

Digester 12 was in service and had a wet seal – No evidence of recent/previous sludge spillages.

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 low level wet seal that was approx. 2ft below the coping stone.

Digester 15 Out of service.

Digester 16 was in service and had a low level wet seal that was approx. 2ft below the coping stone. No signs of previous spill.

Digester 17 was in service and had a low level wet seal that was approx. 2ft below the coping stone. No signs of previous spill.

Digester 18 Out of service.

Digester 19 was in service and had a low level wet seal that was approx. 2ft below the coping stone. No signs of previous spillages.

Digester 20 was in service and had a low level wet seal that was approx. 1ft below the 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).

Tanks 71, 72, 73 and 74 were all drained down and out of service for repairs. TW staff were seen preparing to work on these Circular tanks.

Tanks 75, 76, 77 & 78 were in operation at the time of the inspection and had good clear surfaces. There was no evidence of fatty deposits on the surface. The hose on the arm was rotating and clearing off any remaining deposits. No odours or offensive odours witnessed.

Skips

On the East side:

There was 2x 20yds open bulk carrier that contained a small minimal amount of grit, no tarpaulin cover was in place. Both skips had minimal amount of grit.

There was 1x 14yds enclosed skips- containing general waste. This was covered.

There was one large open box skip which contained inert material of plastic, metal and wood. This skip had no cover.

On the West Side:

There was 1x 14yds skip adjacent to the Sludge Import area (West of the works) that contained inert material. There was no tarpaulin cover over or near the skip.

On the West side of the works just after the pumping station there was 1x 14yds Biffa skip in situ filled with some inert material and general waste. The skip was covered with an off white tarpaulin.

East Side Screen House

The doors at one end of the screen house were open at the time of the inspection. There were contractors from L.O.S working on site. All the doors were open including the metal shutter door.

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 which have been growing out of it and through the steel grating. This has been in the same condition most part of the year.

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. Slight algae covered the surfaces of the PSTs

No other issues were evident with these tanks.

Circular PST 12 is still out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised **9 streams** are currently operational.

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 was mostly free-flowing between lanes 22-25 – A lot better condition than previous visits. Progress has been made with this channel. All the lanes in E Battery were distinct and dividing walls were visible. Not all the sprinkler systems were in operation.

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: 30.11.2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00ppm 0.00ppm 0.00ppm	0.2	Unknown
East OCU	0.00ppm 0.00ppm 0.00ppm	0.05	Yes
West inlet OCU	0.00ppm 0.00ppm 0.00ppm	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	0.02ppm 0.01ppm 0.00ppm	0.6	Yes
New West inlet (OCU 11)	0.00ppm 0.00ppm 0.00ppm	0.5	No
Pasteurisation (OCU 12)	0.02ppm 0.05ppm 0.04ppm	0.5	Yes
Transfer PS inlet	53.66ppm 51.00ppm 47.68ppm	Unknown	Unknown
Transfer PS outlet	0.00ppm 0.00ppm 0.00ppm	0.6	Yes
GBT Plant OCU Outlet	0.00ppm 0.00ppm 0.00ppm	Unknown	Unknown