



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 17 th November 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx. 75% full. No Amajets were in operation.</p> <p>Tank 1B was approx. 75% full. No Amajets were in operation.</p> <p>Tank 2A was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tank 2B was approx. 75% full and returning. Amajets 1 and 2 were in operation.</p> <p>Tank 3A was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tank 3B was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	

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

Tank 6B was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 7A was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 7B was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 8A was approx. 75% full and returning.
Amajets 1, 2 and 3 were all in operation.

Tank 8B was approx. 75% full and returning.
Amajets 1, 2 and 3 were all in operation.

Storm Feed Channel - The level of effluent in both feed channels was approx. 25% along its entire length.

Complaints

The Council received no complaints in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 17/11/2020 at the time of the inspection are below.

Monitor 1	0.010	ppm	13:55pm
Monitor 2	0.004	ppm	13.55pm
Monitor 3	0.000	ppm	13.55pm
Monitor 4	0.007	ppm	13.55pm
Monitor 5	0.005	ppm	13.55pm
Monitor 6	0.004	ppm	13.55pm
Monitor 7	0.008	ppm	13.55pm
Monitor 8	0.003	ppm	13.55pm
Monitor 9	0.008	ppm	13.55pm
Monitor 10	0.003	ppm	13.55pm
Monitor 11	0.007	ppm	13.55pm
Monitor 12	0.007	ppm	13.55pm
Monitor 13	0.007	ppm	13.55pm
Wind Speed	10.016	mph	13.55pm
Wind Direction	226.501		13.55pm

Odour Log (Thames)

Wednesday 11th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Thursday 12th November 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy w/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.

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.

Friday 13th November 2020

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.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 14th November 2020

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.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Sunday 15th November 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM13 0.017 5:11-6:12.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Monday 16th November 2020

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 found or reported.

Operational issues / causes observed. Storm tanks full.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM8 0.015ppm 19:13-20:11.

Operational issues / causes observed. No odour identified.

Tuesday 17th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 spiked at 15:20-15:34 0.021ppm but <15 mins duration.

Operational issues / causes observed.

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. Storm tanks returning.

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					
11/11/2020	117	122	595	834	760	1594
13/11/2020	117	806	595	1518	304	1822
16/11/2020	117	473	885	1475	152	1627

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 has been an average of 8 imports of sludge per day.

No.5 Pumping Station

The doors of No.5 pumping station were closed at the time of the inspection and no odour was noticeable.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably cleaner than on previous visits.

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 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.

Digesters 5 & 6 were both in service but had very wet seals that were bubbling off minimal amounts of gas.
It was noted that both digesters had very high sludge levels (almost to the top of the coping stones).

Digester 7 was in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was noted that there was evidence of a spill around part of the digester.

Digesters 8 & 9 were both in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was noted that both digesters had very high sludge levels (almost to the top of the coping stones).

Digesters 10, 11, 12 and 13 were all in service and all had very wet seals that were bubbling off minimal amounts of gas.

Digester 14 was in service and had a very wet seal that was bubbling minimal amounts of gas.
It was also noted that the sludge level was very high (almost to the top of the coping stone).

Digester 15 was out of service.

Digesters 16 & 17 were both in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digesters 18 & 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

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).

PST 76 is currently out of service.

All remaining tanks were in operation at the time of the inspection.

Skips

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

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were covered.

On the service road next to the raw sludge screening building was a closed 14yds skip.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were closed 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 was clogged along approx. 75% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces apart from PST 10, where just under 25% in front of the sweeper arm was covered in fatty scum.

It was also noted that doors to PST 14 and 15 were open at the time of the inspection, TW advised this is due to ongoing maintenance within the tanks.

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.

D-battery Aeration Lanes (old)

4 lanes of D19 were out of service due to ongoing maintenance. No

issues were evident.

West Side Aeration Lanes

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length.

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: 17/11/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	3.59 0.00 0.00	0.2	Unknown
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00	0.6	Yes

	0.00 0.00		
New West inlet (OCU 11)	3.37 3.11 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.199 0.206 0.203	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes