



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 11 th May 2021 (12:50pm)	
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 empty and clean. Hoppers 1 and 2 were both >25% full, hopper 3 was approx. 65% and required draining down or over-pumping.</p> <p>Tank 1B was empty but had thick sludge in areas across the tanks surface, blocks of what appeared to be solid fat were also present in the tank. Hoppers 1, 2 and 3 were all approx. >25% full.</p> <p>Tank 2A was empty and relatively clean, but had an area of dry grit along the right hand side of the tank. Hoppers 1, 2 and 3 were all approx. >25% full.</p> <p>Tank 2B was empty and relatively clean, but had an area of dry grit along the left hand side of the tank. Hoppers 1, 2 and 3 were all approx. >25% full.</p> <p>Tank 3A was empty but had sludge along the right hand side and along the hopper and of the tank. It was evident that the tank had only just been returned</p>	

Hoppers 1 and 2 were both approx. 30% full, hopper 3 was completely full and required draining down or over-pumping.

Tank 3B was being returned and was nearly empty.
Amajets 2 and 3 were 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 empty and clean.
Hopper 1 was 50% full, hoppers 2 and 3 were both 40% full, all required draining down or over-pumping.

Tank 6B was empty and clean.
Hopper 1 was full, hoppers 2 and 3 were both approx. 25% full, all required draining down or over-pumping.

Tank 7A was empty and clean. but had wet grit at the hopper end of the tank.
Hoppers-1, 2 and 3 (shallow hoppers) were all full and required attention.

Tank 7B was empty but had areas of dry grit across the tanks surface.
Hopper 1 was full of grit, hoppers 2 and 3 (shallow hoppers) were all full of effluent and required attention.

Tank 8A was empty and clean.
Hoppers 1, 2 and 3 were all completely full and overflowing into the tank. All required draining down or over-pumping.

Tank 8B was empty but had sludge at the top end of the tank and grit along the left hand side.
Hoppers 1, 2 and 3 were all full with solid material on their surfaces. All hoppers required draining down or over-pumping.

Storm Feed Channel - The level of effluent in both feed channels was very low along their entire lengths (almost bottomed out). However, large amounts of grit and solid matter was present which required flushing.

Thames were advised by the inspecting officer that the current standard of the storm tanks was not acceptable. Works were urgently required to clean the tanks and over-pump or drain down the hoppers.

Complaints

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

The Council directly received 2 complaints by either email or the on-line web system in the preceding week.

The Council received no complaints by email from MRAG.

On 5th May the Council received an email complaint at 23:42pm from a resident of Algar Road, Isleworth (logged under ref: A147850).

The historic monitor trends showed no excessive odour readings around the time of the complaint. Only OM8 spiked at 0.011ppm (which is below the threshold limit) between 12:40-12:52pm.

On 10th May the Council received an on-line web complaint at 12:24 from a resident of Worton Road, Isleworth (logged under ref: A14862).

The historic monitor trends showed no excessive odour readings throughout the day. Only OM5 showed a spike of 0.013ppm between 08:48-09:10am.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 11/05/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	12:57pm
Monitor 2	0.050	ppm	12:57pm
Monitor 3	0.000	ppm	12:57pm
Monitor 4	0.000	ppm	12:57pm
Monitor 5	0.000	ppm	12:57pm
Monitor 6	0.000	ppm	12:57pm
Monitor 7	0.000	ppm	12:57pm
Monitor 8	0.000	ppm	12:57pm
Monitor 9	0.000	ppm	12:57pm
Monitor 10	0.000	ppm	12:57pm
Monitor 11	0.000	ppm	12:57pm
Monitor 12	0.003	ppm	12:57pm
Monitor 13	-0.025	ppm	12:57pm
Wind Speed	9.726	mph	12:57pm
Wind Direction	172.506		12:57pm

Odour Log (Thames)

Wednesday 5th May2021

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. OM2 blocked out in red.

Time: 17:30.

Observations / Customer Complaint. 0900-current time.

Operational issues / causes observed. Flat lining at 0.050ppm.

Actions Taken. Area checked and no odours found.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 blocked out in red.

Time: 05:30.

Observations / Customer Complaint. OM5 0.036, 00:06-00:21.

0.028 22:21-22:36.

Operational issues / causes observed. Area checked, no source found.

Actions Taken. Blank.

Thursday 6th May 2021

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 17:30.

Observations / Customer Complaint. No spikes. OM13 being repaired.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 7th May 2021

DAY SHIFT

Temp. Cool.

Weather. Sunny with patchy clouds.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked to 0.022, less than 15 mins.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Patchy rain.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 05:30.

Observations / Customer Complaint. No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Saturday 8th May 2021

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. OM2 and OM13 blocked out in red.

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. Patchy rain.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 05:30.

Observations / Customer Complaint. No odour issues found or reported.

Operational issues / causes observed. Blank

Actions taken. Blank.

Sunday 9th May 2021

DAY SHIFT

Temp. Cool.

Weather. Cloudy with sunny spells.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

NIGHT SHIFT**Temp.** Cool.**Weather.** Patchy rain.**Odour Readings.** OM2 and OM13 blocked out in red.**Time:** 05:30.**Observations / Customer Complaint.** No odour issues found or reported.**Operational issues / causes observed.** Blank.**Actions Taken.** Blank.**Monday 10th May 2021****DAY SHIFT****Temp.** Warm..**Weather.** Sunny with patchy cloud.**Odour Readings.** OM2 and OM13 blocked out in red.**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.** Overcast night.**Odour Readings.** OM2 and OM13 blocked out in red.**Time:** 05:30.**Observations / Customer Complaint.** No odour issues found or reported.**Operational issues / causes observed.** Blank.**Actions taken.** Blank.**Tuesday 11th May 2021****DAY SHIFT****Temp.** Warm.**Weather.** Rain with sunny spells.**Odour Readings.** OM2 and OM13 blocked out in red.**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. Cloudy.

Odour Readings. OM2 and OM13 blocked out in red.

Time: 05:30.

Observations / Customer Complaint. No odour issues found or reported.

Operational issues / causes observed. Blank.

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					
05/05/2021	0	824	2530	3354	784	4138
07/05/2021	0	824	2530	3354	936	4290
10/05/2021	0	824	2343	2425	1088	4255

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 no imports of sludge in the preceding week.

No.5 Pumping Station

The doors of No.5 pumping station were closed 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. However, one of the two skips present was not covered (cover was on the floor next to the skip), and the skip was over 25% full and giving off odour

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.

Digester 5 was in service and had a low wet seal that was bubbling off gas minimal amounts of gas.

Digester 6 was in service and had a low wet seal that was bubbling off gas minimal amounts of gas. It had also had a spill on the far side of the digester that required cleaning.

Digesters 7, 8, 9, 10, 11 and 12 were all in service. All had low wet seals that were bubbling off minimal amounts of gas.

Digester 13 was in service. The bell height was high and seal very wet, which was bubbling off gas.

Digester 15 was out of service.

Digester 16 was in service and had a wet seal that was bubbling off minimal amounts of gas. On one side of the digester a spill had occurred and the bell height was high.

Digester 17 was in service and had a very wet seal (virtually no seal) that was bubbling off minimal amounts of gas.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal (virtually no seal) that was bubbling off minimal amounts of gas.

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. Other than surface algae on tank 73 that was covering less than 25% of the tanks surface, no other issues were evident.

Skips

On the East side there two 14yds open skips. One contained only general waste and the other was covered with a tarpaulin. Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that contained grit (approx. 30%) and was part-covered with a tarpaulin.

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, only one was covered with a tarpaulin.

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

Both sets of doors of the screen house were closed at the time of the

inspection. No 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 approx. 70% of its length, there were visibly crusty areas and a significant 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's 9, 10 and 11 were all in use and had relatively fat free surfaces other than PST 10 (fat was present in front of the sweep arm and around the outer edges of the tank).

No other issues were evident with these tanks.

Circular PST 12 is currently out of service. It was noted that the area in the middle of the tank contained a large quantity of solid fat, algae and other floating debris.

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 and little surface movement was visible. Thick fluffy scum covered virtually the entire surface area of all lanes and the dividing walls were barely visible.

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 clogged (including floating debris) along at least 80% of its length (noticeably between lanes 25, 24 and 22).

New Inlet Works (West Side)

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

Combi-pactor 13 is currently being replaced and out of service, works were ongoing at the time of the inspection.

Odour Control Unit (OCU) performance monitoring: 11/05/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.04 0.04 0.04	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 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.01	0.6	Yes