



## Mogden Sewage Treatment Works

### TW Site Inspection

<p><b>Date of inspection:</b> Wednesday 22<sup>nd</sup> December 2021 (12:45pm)</p>	
<p><b>Attendees:</b> Mr I Inman (London Borough of Hounslow), Mr N Bristow (Thames Water).</p>	
LB Hounslow Observation	Thames Water Action / Response
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hoppers 1, 2 and 3 were all drained down.</p> <p><b>Tank 1B</b> was empty and relatively clean except for dry grit along the left hand side of the tank. Hoppers 1 and 2 were drained down, hopper 3 was approx. 25% full and required further draining down or over-pumping.</p> <p><b>Tank 2A</b> was empty and clean but had dry grit along the right hand side of the tank. Hoppers 1 and 2 were drained down, hopper 3 was approx. 25% full and required further draining down or over-pumping.</p> <p><b>Tank 2B</b> was empty and clean but had dry grit along the left hand side of the tank. Hoppers 1, 2 and 3 were all approx. 90% full and required draining down or over-pumping.</p> <p><b>Tank 3A</b> was empty but had wet sludge across 50% of the tanks surface at the hopper end</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Hopper 1 was 10% full, hopper 2 was 50% full and hopper 3 was full. All required drained down or over-pumping.

**Tank 3B** was in use and had a very low level of effluent across the entire tanks surface.

**Tanks 4A, 4B, 5A & 5B** All tanks are covered and odour controlled. Still unable to gauge condition of these tanks as the internal lighting system is still not working.

**Tank 6A** was empty and clean but had dry grit across the bottom half of the tank.

Hoppers 1, 2 and 3 were all 40% full and required draining down or over-pumping.

**Tank 6B** was empty and clean but had dry grit across the bottom half of the tank.

Hopper 1 was completely full, hoppers 2 and 3 were both 60% full; all required draining down or over-pumping.

**Tank 7A** was empty but was in a filthy state and had dry grit and wet sludge across the entire tanks surface.

Hoppers 1, 2 and 3 (shallow hoppers) were relatively clean.

The tank and hoppers required flushing.

**Tank 7B** was empty but had dry grit and wet sludge at the top and along the left hand side of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all overflowing.

The tank and hoppers required flushing.

**Tank 8A** was in use and 50% full.

The tank required either returning or flushing.

**Tank 8B** was empty but had wet sludge and dry grit across the top half of the tank.

Hoppers 1, 2 and 3 were full and overflowing into the tank, all required draining down or over-pumping.

**Storm Feed Channel** - The level of effluent in both feed channels was

low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were odorous in places.

**Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 22/12/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:10pm
Monitor 2	0.001	ppm	13:10pm
Monitor 3	0.007	ppm	13:10pm
Monitor 4	0.004	ppm	13:10pm
Monitor 5	0.005	ppm	13:10pm
Monitor 6	0.005	ppm	13:10pm
Monitor 7	0.000	ppm	13:10pm
Monitor 8	0.006	ppm	13:10pm
Monitor 9	0.004	ppm	13:10pm
Monitor 10	0.004	ppm	13:10pm
Monitor 11	0.005	ppm	13:10pm
Monitor 12	0.000	ppm	13:10pm
Monitor 13	0.006	ppm	13:10pm
Wind Speed	5.547	mph	13:10pm
Wind Direction	134.474		13:10pm

### Odour Log (Thames)

#### Wednesday 15<sup>th</sup> December 2021

##### **DAY SHIFT**

**Temp.** Warm.

**Weather.** Cloudy.

**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.** OM8 0.015ppm 0.:35-03:45.

**Operational issues / causes observed.** No odour issues. Spike <15 minutes.

**Actions Taken.** Blank.

**Thursday 16<sup>th</sup> December 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues found reported 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 0.015ppm 19:33-20:31.

**Operational issues / causes observed.** PAS odour. No sludge spills or PAS unit overflows.

**Actions Taken.** Blank.

**Friday 17<sup>th</sup> December 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.** 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.

**Saturday 18<sup>th</sup> December 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.** 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.

**Sunday 19<sup>th</sup> December 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.** 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.

**Monday 20<sup>th</sup> December 2021**

**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.** 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.

**Tuesday 21<sup>st</sup> December 2021**

**DAY SHIFT**

**Temp.** Cold.  
**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.** Cold.  
**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM3 spiked at 23:15-23:47 and 04:30-04:46, max 0.029ppm.

OM13 spiked at 03:30-04:30, max 0.016ppm.

**Operational issues / causes observed.** Still clear night and frosty. PST12 possible source of odour? Needs cleaning out.

**Actions Taken.** Blank.



### **Sludge Dip Records**

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
15/12/2021	0	1405	885	2290	760	3050
20/12/2021	0	928	885	1813	1088	2901

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 30 imports of sludge per day in the preceding week.

### **No.5 Pumping Station**

The door and one window of No.5 pumping station were closed at the time of the inspection.

### **Sludge Import Area**

The condition around the sludge import area has improved and was noticeably cleaner.

Both of the two skips present were fully covered and both skips with the tailor made tarpaulins.

As LBH note, this has not been required in the last week.

## **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place 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 out of service.

**Digester 6** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 7** was in service and had a very wet seal that was bubbling off minimal amounts of gas. It was noted digester 7 had a high bell and had been spitting on the service road side of the unit that required cleaning.

**Digesters 8, 9, 10, 11 and 12** were all in service and had a very wet seals that was bubbling off minimal amounts of gas. It was noted that digester 10 had a very high seal.

**Digesters 13 and 14** were both in service and had a very wet seals that was bubbling off minimal amounts of gas. It was noted that digester 13 had a very high seal that was about to spill and required drawing down.

**Digester 15** was out of service.

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

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 18** was out of service.

**Digesters 19 and 20** were both in service and had a very wet seals that was bubbling off minimal amounts of gas.

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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. It was noted that all 8 tanks had varying amounts of green algae and/or scum on tanks surface, some of which appeared lumpy. However, no odour was present.

### **Skips**

On the East side was one 14yds closed skip that was clearly signed "Rag only".

Also present was one 20yds open bulk carrier that contained a small amount of grit and was clearly signed "Grit only", and one 20yds open bulk carrier that contained general rubbish (Old flexible pipe).

Two of the three roller shutter doors on the East side grit building were open and a Bobcat Skidsteer loader was parked inside.

On the service road between FST's 20 and 24 was closed 14yds skip that was clearly signed "Rag only".

On the service road next to the raw sludge screening building was a

closed 14yds skip.

All empty/spare skips had been removed from the West side of the works.

### **East Side Screen House**

Both sets of doors and the roller shutter 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 60% 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. All had some surface scum that appeared to be fatty type algae.

Circular PST 12 is currently out of service. It was noted that the tank contained a large quantity of solid fat, thick dry sludge, algae, rag and other debris which was not all present during the officers previous visit.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised all 10 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 previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged on the surface with thick sludge.

**New Inlet Works (West Side)**

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

**Old Inlet Works (West Side)**

A walk around of the existing inlet was carried out and everything appeared in good order.

**Odour Control Unit (OCU) performance monitoring: 21/12/2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00	0.2	Unknown
	0.01		
	0.02		
East OCU	0.00	0.05	Unknown

	0.00 0.00		
West inlet OCU	0.08 0.03 0.00	0.05	Unknown
Thickening plant outlet	0.007 0.00 0.00	0.6	Unknown
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Unknown
Pasteurisation (OCU 12)	0.09 0.07 0.11	0.5	Unknown
Transfer PS inlet	38.31 34.71 31.28	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 14 <sup>th</sup> December 2021	
<b>Attendees:</b> Mr Steven Maunders and Ms Caitlin Simmonds (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – 10% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 60% full, Hoppers 2 &amp; 3 approx. 30% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approx. 25% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 50% full, Hoppers 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> - Tank empty – 10% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – Approx. 30% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 90% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing - Hopper 1 drained down to bottom, Hopper 2 approx. 50% full and Hopper 3 full – requires draining/over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** – Tank recently returned – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty and flushed clean - Hoppers 1 & 2 approx. 50% full, Hopper 3 approx. 20% full – requires draining/over-pumping.

**Tank 6B** – Tank empty – 25% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hopper 2 approx. 60% full, Hopper 3 approx. 85% – requires draining/over-pumping.

**Tank 7A** – Tank backfilling – approx. 50% – requires draining - All Hoppers full – requires draining/over-pumping.

**Tank 7B** – Tank empty – 50% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 8A** – Tank backfilling and approx. 20% of surface of tank covered All Hoppers full – requires draining/over-pumping.

**Tank 8B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity – large deposits of grit/sludge throughout channel - no local odours.

### **Complaints**

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



The Council directly received no complaints by email in the preceding week:

The Council received no complaints by email from MRAG.

*Thames Water controller advised that they had received no direct complaints in the preceding week.*

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	.004	ppm	13:44
Monitor 2	.001	ppm	13:44
Monitor 3	.004	ppm	13:44
Monitor 4	.004	ppm	13:44
Monitor 5	.005	ppm	13:44
Monitor 6	.005	ppm	13:44
Monitor 7	.000	ppm	13:44
Monitor 8	.007	ppm	13:44
Monitor 9	.000	ppm	13:44
Monitor 10	.004	ppm	13:44
Monitor 11	.005	ppm	13:44
Monitor 12	.000	ppm	13:44
Monitor 13	.005	ppm	13:44
Wind Speed	2.5	mph	13:44
Wind Direction	238°		13:44

### **Odour Log (Thames):**

#### **Wednesday 8<sup>th</sup> December 2021:**

**AM** – Cool – Cloudy.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 9<sup>th</sup> December 2021:**

**AM** – Cool – Cloud.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** "ABLE onsite calibrating monitors."

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "OM8 0.016 01:34-01:49."

**Operational Issues/Causes:** "Some odour from PAS."

**Actions:** No data.

**Friday 10<sup>th</sup> December 2021:**

**AM** – Cold – Cloudy.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** "ABLE onsite calibrating monitors."

**Actions:** No data.

**PM** – Cold – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM9 spiked to 0.020 @ 19:47 to 20:02."

**Operational Issues/Causes:** "Flare running at time, CHP No.3 being repaired."

**Actions:** "CHP Team working on engine now running."

**Saturday 11<sup>th</sup> December 2021:**

**AM** – Cold - Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM5 0.019ppm 05:36-05:50."  
**Operational Issues/Causes:** "Spike 15 minutes. No odour issues."  
**Actions:** No data.  
**PM** – Cold – Patchy Rain.  
All OMU's in use.  
Observations/Complaints: "No odour issues found or reported."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.

**Sunday 12<sup>th</sup> December 2021:**

**AM** – Cool – Cloudy.  
All OMU's in use.  
**Observations/Complaints:** "No odour issues."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.  
**PM** – Cold – Clear Night.  
All OMU's in use.  
**Observations/Complaints:** "No odour issues found or reported."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.

**Monday 13<sup>th</sup> December 2021:**

**AM** – Cool – Cloudy.  
All OMU's in use.  
**Observations/Complaints:** "No odour issues."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.  
**PM** – Cool – Cloudy.  
All OMU's in use.  
**Observations/Complaints:** "No odour issues found or reported."  
**Operational Issues/Causes:** No data.  
**Actions:** No data.

**Tuesday 14<sup>th</sup> December 2021:**

**AM** – Warm – Cloudy.  
All OMU's in use.  
**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.017ppm 02:39-02:54."

**Operational Issues/Causes** "Nothing out of the ordinary happening on site."

**Actions:** No data.

### Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
<b>OMP limit</b>	<b>500</b>					
08/12/21	0	1781	885	2666	1088	3754
10/12/21	0	1780	885	2665	912	3577
13/12/21	0	1405	885	2290	912	3202 (TW figure 3777)

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

As LBH note, this has not been required in the last week.

### Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water

accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** - Out of use – contractors on site working.

**Digester 6** - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 9** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

**Digester 10** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

**Digester 12** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 13** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

**Digester 15** - Out of use.

**Digester 16** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 17** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**Digester 20** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**GENERAL**

**Sludge Screening House**

Roller shutter doors closed at the time of inspection – other doors open – contractors on site working.

**Imported Sludge**

Average of ten imports daily for preceding seven days.

**Final Settlement Tanks East Side of Works**

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

**East Side Raw Sludge Screen House**

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

**Pasteurisation Plant**

Nine streams running.

### **Skips**

2x small (blue) skips full of rag/grit – requires covering/emptying – rear of sludge screen house.

1x open container grit skip (5 % full) uncovered, 1x open container skip – General Waste (full), 1x 8-yard General Waste skip (covered). New signage added to skip area to clearly identify skip contents.

1x enclosed container skip (50% full) in Service Road at rear of Power House.

1x open 8-Yard skip (scrap metal) in Service Road by Pasteurisation Plant.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

### **West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

### **New Works (West Side) Battery E**

Feed Channel for Aeration Lanes – recently jetted and clear – Lane 22 beginning to accumulate. Tank performance progressively improving. 2x sprinkler heads replaced (old parts lefts by Tank – require removal).

**Odour Control Unit (OCU) performance monitoring – 13/12/21**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.07 0.03 0.00	0.05	No
West inlet OCU	0.09 0.013 0.01	0.05	No
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.08 0.05 0.06	0.6	No
Transfer PS inlet	47.88 41.50 38.30	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown





## .Mogden Sewage Treatment Works

### TW Site Inspection

<p><b>Date of inspection:</b> Tuesday 7<sup>th</sup> December 2021</p>	
<p><b>Attendees:</b> Mr L Phillips (London Borough of Hounslow), Ms C Simmonds (Thames Water).</p>	
LB Hounslow Observation	Thames Water Action / Response
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> - Was empty and clean. All hoppers drained to lowest point.</p> <p><b>Tank 1B</b> - Was empty, however some sludge located at the hopper end of the tank. All hoppers drained to lowest point.</p> <p><b>Tank 2A</b> - Was empty and clean, some dry grit located at the hopper end of the tank. Hoppers 1 and 2 were 50% full and require draining, hopper 3 was full and requires draining/over-pumping.</p> <p><b>Tank 2B</b> - Was empty, 50% of the tank covered in dry grit. All hoppers 50% full and require draining/ove-pumping.</p> <p><b>Tank 3A</b> - Was empty, tanker onsite over-pumping the hoppers.</p> <p><b>Tank 3B</b> - Was empty, tank recently returned and covered in sludge, requires flushing. All hoppers full and require draining/over-pumping.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> - All tanks are covered and odour controlled. Still unable to gauge condition of these tanks as the internal lighting</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

system is still not working.

**Tank 6A** - Was empty and clean. All hoppers drained to lowest point.

**Tank 6B** - Was empty and clean. All hoppers full and required draining/over-pumping.

**Tank 7A** - Was empty but had wet sludge across 50% of the tanks surface at the hopper end. Hoppers 1, 2 and 3 (shallow hoppers) were relatively clean.

**Tank 7B** - Was empty but had wet sludge across 30% of the tanks surface at the hopper end and along the left side and top end of the tank. Hoppers 1, 2 and 3 (shallow hoppers) had some grit built up.

**Tank 8A** - Was empty but had wet liquid across 20% of the tanks surface at the hopper end. All hoppers were full and required draining down/over-pumping.

**Tank 8B** - Was empty but had wet sludge across 50% of the tanks surface at the top end and along the left hand side of the tank. All hoppers full and require draining/over-pumping.

**Storm Feed Channel** - The level of effluent in both feed channels was low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were odorous in places.

### **Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 07/12/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:49pm
Monitor 2	0.001	ppm	13:51pm
Monitor 3	0.000	ppm	13:51pm
Monitor 4	0.005	ppm	13:51pm
Monitor 5	0.008	ppm	13:51pm
Monitor 6	0.000	ppm	13:51pm
Monitor 7	0.000	ppm	13:51pm
Monitor 8	0.008	ppm	13:51pm
Monitor 9	0.000	ppm	13:51pm
Monitor 10	0.005	ppm	13:52pm
Monitor 11	0.000	ppm	13:52pm
Monitor 12	0.005	ppm	13:52pm
Monitor 13	0.005	ppm	13:52pm
Wind Speed	12.450	mph	13:52pm
Wind Direction	169.807		13:52pm

### **Odour Log (Thames)**

**Tuesday 30<sup>th</sup> 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 0.015ppm 17:52 – 18:05

OM3 0.020ppm 04.40 – 04:54.

**Operational issues / causes observed:** No odour issues on site. Both spikes less than 15 minutes.

**Actions Taken:** Blank.

**Wednesday 1<sup>st</sup> December 2021**

**DAY SHIFT:**

**Temp:** Cool.

**Weather:** Cloudy.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.:** OM8 spiked at 16:34 – 16:50 max 0.20ppm.

**Operational issues / causes observed:** PAS odour in the air on main drive near powerhouse.

**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.

**Thursday 2<sup>nd</sup> December 2021**

**DAY SHIFT :**

**Temp:** Freezing.

**Weather:** Sunny W/ patchy clouds.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** 17:9 – 17:18 OM8 max 0.017.

**Operational issues / causes observed:** No odour issues on site. Both spikes less than 15 mins.

**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 found or reported.

**Operational issues / causes observed:** Blank.

**Actions taken:** Blank.

**Friday 03<sup>rd</sup> December 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:** 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 04<sup>th</sup> December 2021**

**DAY SHIFT:**

**Temp:** Cold.

**Weather:** Patchy rain.  
**Odour Readings:** All OMU's in operation.  
**Time:** 17:30.  
**Observations / Customer Complaint:** OM5 0.015ppm 06:07 – 06:20.  
**Operational issues / causes observed:** No odour issues spike less than 15 minutes.  
**Actions taken:** Blank.  
**NIGHT SHIFT:**  
**Temp:** Cold.  
**Weather:** Patchy rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint:** OM8 spiked at 22:18 – 22:35 and 03:50 – 04:06 both had max 0.025ppm.  
**Operational issues / causes observed:** PAS odour in on main drive near powerhouse.  
**Actions Taken:** Blank.

#### Sunday 05<sup>th</sup> December 2021

**DAY SHIFT:**  
**Temp:** Cold.  
**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:** Cold.  
**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.

#### Monday 06<sup>th</sup> December 2021

**DAY SHIFT:****Temp:** Cold.**Weather:** Patchy rain.**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:** 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.**Wednesday 7<sup>th</sup> December 2021****DAY SHIFT:****Temp:** Cool.**Weather:** Rain.**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.

### **Sludge Dip Records**

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
01/12/2021	0	1780	1030	2810	1568	4378
03/12/2021	0	1593	824	2417	1240	3657
06/12/2021	0	1405	1030	2435	1240	3675

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 door and one window of No.5 pumping station were closed at the time of the inspection.

### **Sludge Import Area**

The condition around the sludge import area has improved and was noticeably cleaner.

Both of the two skips present were fully covered and both skips with the tailor made tarpaulins

As LBH note, this has not been required in the last week.



## **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place 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 out of service.

**Digester 6** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 7** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 8** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 9** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 10** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 11** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 12** - was in service weak sloppy wet seal. No evidence of previous spillage.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 13** - was in service weak sloppy wet seal. No evidence of previous spillage.

**Digester 14** - was in service weak sloppy seal bubbling. No evidence of previous spillage.

**Digester 15** - was out of service.

**Digester 16** - was in service and had a very wet seal that was bubbling off minimal amounts of gas. It was noted digester 16 had a high bell and had been spitting that required cleaning.

**Digester 17** - was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 18** - was out of service.

**Digester 19** - was in service weak sloppy wet seal. No evidence of previous spillage.

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

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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. All 8 tanks had varying amounts of green algae scum on tanks surface, some of which appeared lumpy. However no odour was present.

### **Skips**

On the East side was one 14yds open skips that was covered with a tarpaulin, which Thames advised was due to be removed shortly.

Also present was one 20yds open bulk carrier that contained a small amount of grit, and one 20yds open bulk carrier that contained general rubbish (Old flexible pipe)

Also present was one 40yds closed bulk carrier that was empty

Two of the three roller shutter doors on the East side grit building were open and a Bobcat Skidsteer loader was parked inside.

On the service road between FST's 20 and 24 was closed 14yds skip that was clearly signed "Rag only".

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

### **East Side Screen House**

Both sets of doors and the roller shutter were open due to ongoing maintenance within the building. Contractors were on site carrying out internal works 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 50% 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. All had some surface scum that appeared to be fatty type algae.

Circular PST 12 is currently out of service. It was noted that the tank contained a large quantity of solid fat, thick dry sludge, algae, rag and other debris which was not all present during the officers previous visit.

### **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 previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged on the surface with thick sludge.

### **New Inlet Works (West Side)**

No issues appeared evident at the new inlet works and everything

appeared to be in a good tidy order.

**Old Inlet Works (West Side)**

A walk around of the existing inlet was carried out and everything appeared in good order

**Odour Control Unit (OCU) performance monitoring: 22/11/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.00 0.00 0.00	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
Thickening plant outlet	0.05 0.02 0.07	0.6	Unknown
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Unknown
Pasteurisation (OCU 12)	0.06 0.03 0.01	0.5	Unknown
Transfer PS inlet	58.77 51.61 47.01	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown
GBT Plant OCU Outlet	0.00 0.00	Unknown	Unknown

	0.00			
	0.00			



## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 30<sup>th</sup> November (13:00pm)

**Attendees:** Mr Z Kadri (London Borough of Hounslow), Caitlin Simmonds (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**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.

**Tank 1B** was empty slight grit across the surface. Hoppers 1 & 2 were empty however Hopper 3 needed draining down.

**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.

**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.

**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.

**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.

Tankers ordered to clean tanks.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**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 (H<sub>2</sub>S) 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 24<sup>th</sup> 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 25<sup>th</sup> 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 26<sup>th</sup> 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 27<sup>th</sup> 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 28<sup>th</sup> 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 29<sup>th</sup> 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 30<sup>th</sup> 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 <sup>3</sup>					
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

As LBH note, this has not been required in the last week.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**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**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
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



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 23 <sup>rd</sup> November 2021 (1pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow), Ms C Simmonds (Thames Water).	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hopper 1 was 50% full, hopper 2 was 10% full and hopper 3 was 20% full. Hoppers 1 and 3 required further draining down.</p> <p><b>Tank 1B</b> was empty and clean except for dry grit along the left hand side of the tank. Hopper 1 was 15% full, hopper 2 was drained down and hopper 3 was 20% full. Hoppers 1 and 3 required further draining down.</p> <p><b>Tank 2A</b> was empty and clean but had dry grit along the right hand side of the tank. Hopper 1 was 15% full, hopper 2 was 10% full and hopper 3 was drained down. Hoppers 1 and 2 required further draining down.</p> <p><b>Tank 2B</b> was empty and clean but had dry grit along the left hand side of the tank. Hoppers 1, 2 and 3 were all 25% full and required further draining down.</p> <p><b>Tank 3A</b> was empty but had wet sludge across 50% of the tanks</p>	<ul style="list-style-type: none"><li>• Tankers have been ordered. Work has already begun on clearing hoppers 1,2,6b.</li><li>• Overtime being arranged for this weekend to clean tanks.</li><li>• Site manager emailed the EA regarding the flushing of the storm tanks with final effluent.</li></ul>

surface at the hopper end

Hopper 1 was 20% full, hopper 2 was <10% full and hopper 3 was 15% full. Hoppers 1 and 3 required further drained down.

**Tank 3B** was empty and clean but had dry grit along the left hand side of the tank.

Hoppers 1 and 2 were completely full, hopper 3 was 65% full. All hoppers required draining down or over-pumping.

**Tanks 4A, 4B, 5A & 5B** All tanks are covered and odour controlled. Still unable to gauge condition of these tanks as the internal lighting system is still not working.

**Tank 6A** was empty and clean but had dry grit along the right bottom side of the tank.

Hoppers 1 and 2 were full 50% full, hopper 3 was 80% full. All hoppers required draining down or over-pumping.

Odour was noticeably present between tanks 6A and 7A.

**Tank 6B** was empty and clean but had dry grit along the left bottom side of the tank.

Hoppers 1 and 2 were both full 90% full, hopper 3 was 40% full. All hoppers required draining down or over-pumping.

**Tank 7A** was empty but had wet sludge across 50% of the tanks surface at the hopper end.

Hoppers 1, 2 and 3 (shallow hoppers) were relatively clean and the X hopper was grit free.

**Tank 7B** was empty but had wet sludge across 30% of the tanks surface at the hopper end and along the left side and top end of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were relatively clean and the X hopper was grit free.

**Tank 8A** was empty but had wet liquid across 20% of the tanks surface at the hopper end.

Hoppers 1 and 3 were full, hopper 2 was 10% full. Hoppers 1 and 3 required draining down or over-pumping.

**Tank 8B** was empty but had wet sludge across 50% of the tanks surface at the top end and along the left hand side of the tank. Hoppers 1, 2 and 3 were full, All hoppers required draining down or over-pumping.

**Storm Feed Channel** - The level of effluent in both feed channels was low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were odorous in places.

### **Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 23/11/2021 at the time of the inspection are below.

Monitor 1	0.003	ppm	13:00pm
Monitor 2	0.001	ppm	13:00pm
Monitor 3	0.000	ppm	13:00pm
Monitor 4	0.006	ppm	13:00pm
Monitor 5	0.005	ppm	13:00pm
Monitor 6	0.000	ppm	13:00pm
Monitor 7	0.004	ppm	13:00pm
Monitor 8	0.007	ppm	13:00pm
Monitor 9	0.005	ppm	13:00pm
Monitor 10	0.005	ppm	13:00pm
Monitor 11	0.00	ppm	13:00pm
Monitor 12	0.005	ppm	13:00pm
Monitor 13	0.005	ppm	13:00pm
Wind Speed	0.204	mph	13:00pm
Wind Direction	280.871		13:00pm

### Odour Log (Thames)

#### Wednesday 17<sup>th</sup> 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.** Cool.

**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.

**Thursday 18<sup>th</sup> November 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny w/patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM8 max 0.022ppm @ 15:19-15:33.

**Operational issues / causes observed.** Smell coming from PAS area.

**Actions Taken.** Area checked and no spills found.

**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.

**Friday 19<sup>th</sup> November 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny 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 20<sup>th</sup> November 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny w/patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM8 showing odour, max 0.026ppm for less than 1 minute.

**Operational issues / causes observed.** Smell from PAS area.

**Actions taken.** Area checked.

**NIGHT SHIFT**

**Temp.** Cool.

**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.

**Sunday 21<sup>st</sup> November 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Sunny w/patchy clouds.

**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 found or reported.  
**Operational issues / causes observed.** Blank.  
**Actions Taken.** Blank.

**Monday 22<sup>nd</sup> November 2021**

**DAY SHIFT**

**Temp.** Cool.  
**Weather.** Sunny w/patchy clouds.  
**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 found or reported.  
**Operational issues / causes observed.** Blank.  
**Actions Taken.** Blank.

**Tuesday 23<sup>rd</sup> November 2021**

**DAY SHIFT**

**Temp.** Cold.  
**Weather.** Clear night.  
**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 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 <sup>3</sup>					
OMP limit	500					
17/11/2021	0	1321 <b>1466*</b>	1030	2351	912 <b>760*</b>	3712 <b>3256*</b>
22/11/2021	0	2216	760	2976	936	3912

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.

\* **Incorrect figures entered on Thames Water paperwork.**

### Imported Sludge

There have been an average of 8 imports of sludge per day in the preceding week.

### No.5 Pumping Station

The door and one window of No.5 pumping station were closed at the time of the inspection.

### Sludge Import Area

The condition around the sludge import area has improved and was noticeably cleaner.

Both of the two skips present were fully covered and both skips with the

tailor made tarpaulins

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place 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 out of service.

**Digester 6** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 7** was in service and had a very wet seal that was bubbling off minimal amounts of gas. It was noted digester 7 had a high bell and had been spitting on the service road side of the unit that required cleaning.

**Digesters 8, 9, 10 and 11** were all in service and had a very wet seals that was bubbling off minimal amounts of gas.

**Digester 12** was out of service.

**Digesters 13 and 14** were both in service and had a very wet seals that was bubbling off minimal amounts of gas.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal that was bubbling

- Short term- PAS team will continue to do regular check of digesters in order to clear any spills.
- Long term- level sensors to be replaced on digesters to accurately control digester height and manage spills.
- Quotes have been obtained to address the level sensor improvements. Current project completion for Digester level sensors is October 2022.

off minimal amounts of gas. It was noted digester 16 had a high bell and had been spitting that required cleaning.

**Digester 17** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 18** was out of service.

**Digester 19** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

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

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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. It was noted that all 8 tanks had varying amounts of green algae and/or scum on tanks surface, some of which appeared lumpy. However, no odour was present.

### **Skips**

On the East side was one 14yds open skips that was covered with a tarpaulin, which Thames advised was due to be removed shortly.

Also present was one 20yds open bulk carrier that contained a small amount of grit, and one 20yds open bulk carrier that contained general

rubbish (Old flexible pipe)

Also present was one 40yds closed bulk carrier that was empty

Two of the three roller shutter doors on the East side grit building were open and a Bobcat Skidsteer loader was parked inside.

On the service road between FST's 20 and 24 was closed 14yds skip that was clearly signed "Rag only".

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

All empty/spare skips had been removed from the West side of the works.

#### **East Side Screen House**

Both sets of doors and the roller shutter were open due to ongoing maintenance within the building. Contractors were on site carrying out internal works 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 50% 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. All had some surface scum that appeared to be fatty type algae.

Circular PST 12 is currently out of service. It was noted that the tank contained a large quantity of solid fat, thick dry sludge, algae, rag and other debris which was not all present during the officers previous visit.

### **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 previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged on the surface with thick sludge.

### **New Inlet Works (West Side)**

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

### **Old Inlet Works (West Side)**

A walk around of the existing inlet was carried out and everything

Brought to the attention of the site manager.



appeared in good order

**Odour Control Unit (OCU) performance monitoring: 22/11/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.00 0.07 0.09	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
Thickening plant outlet	0.019 0.015 0.013	0.6	Unknown
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Unknown
Pasteurisation (OCU 12)	0.21 0.16 0.20	0.5	Unknown
Transfer PS inlet	0.98 0.90 0.89	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 9<sup>th</sup> November 2021 13:08PM

**Attendees:** Mr L Phillips (London Borough of Hounslow), Ms C Simmonds (Thames Water).

<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> - Was empty and clean. All hoppers were drained down to lowest point.</p> <p><b>Tank 1B</b> - Was empty slight grit build up at the hopper end of the tank. All hoppers were drained down to lowest point.</p> <p><b>Tank 2A</b> - Was empty slight grit build up at the hopper end of the tank. All hoppers were drained down to lowest point.</p> <p><b>Tank 2B</b> - Was empty slight grit build up at the hopper end of the tank. All hoppers were drained down to lowest point.</p> <p><b>Tank 3A</b> - Was empty however tank full of sludge. The tank appeared to have been recently returned. All hoppers full and require draining/over pumping.</p> <p><b>Tank 3B</b> - Tank returning at the time of inspection. Amajets 2 &amp; 3 in operation.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> All tanks are covered and odour controlled.</p>	

Still unable to gauge condition of these tanks as the internal lighting system is still not working.

**Tank 6A** - Tank returning at the time of inspection. Amajet 1 in operation.

**Tank 6B** - Was empty clean- All hoppers full and require draining/over pumping.

**Tank 7A** - Was empty but had effluent back-filling from the hoppers which were overflowing - Slight dry grit located at hopper end of the tank – All hoppers full require draining/over pumping.

**Tank 7B** - Was empty tank surface covered in sludge – All hoppers all appeared clogged with sludge – All hoppers full and require draining/over pumping.

**Tank 8A** - Tank had effluent that was back-filling from the hoppers - Part of the tank covered in black liquid covering half of the tanks surface- All hoppers full and require draining/over pumping.

**Tank 8B** – Tank had effluent that was back-filling from the hoppers - Part of the tank covered in black liquid covering half of the tanks surface- All hoppers full and require draining/over pumping.

**Storm Feed Channel** - The condition of the storm channel appears to be steadily deteriorating.

Although the level of effluent in both feed channels was low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were very odorous in places.

### **Complaints**

The Council received no complaints by telephone in the preceding

week.

The Council received no complaints by either email or the on-line web system in the preceding week.

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

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 09/11/2021 at the time of the inspection are below.

Monitor 1	0.004	ppm	13:00pm
Monitor 2	0.001	ppm	13:00pm
Monitor 3	0.000	ppm	13:00pm
Monitor 4	0.005	ppm	13:00pm
Monitor 5	0.004	ppm	13:00pm
Monitor 6	0.000	ppm	13:00pm
Monitor 7	0.004	ppm	13:00pm
Monitor 8	0.007	ppm	13:00pm
Monitor 9	0.000	ppm	13:00pm
Monitor 10	0.000	ppm	13:00pm
Monitor 11	0.000	ppm	13:00pm
Monitor 12	0.005	ppm	13:00pm
Monitor 13	0.003	ppm	13:00pm
Wind Speed	3.706	mph	13:00pm
Wind Direction	227.066		13:00pm

**Odour Log (Thames)**

**Tuesday 2<sup>nd</sup> November 2021**

**DAY SHIFT:**

**Temp:** Cool.

**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:** Cold.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** OM5 0.020ppm 19:20-20:20;

OM8 0.024ppm 19:17-19:35; OM4 0.019ppm 20:03-20:18.

**Operational issues / causes observed:** No issues found.

**Actions Taken:** Site investigation carried out around odour monitors which were spiking. PAS area odours but nothing out of the ordinary found.

### Wednesday 3<sup>rd</sup> November 2021

**DAY SHIFT:**

**Temp:** Cool.

**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:** 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 4<sup>th</sup> November 2021

**DAY SHIFT:**

**Temp:** Cool.  
**Weather:** Cloudy.  
**Odour Readings:** All OMU's in operation.  
**Time:** 17:30.  
**Observations / Customer Complaint:** OM3 spiked at 12:30-12:40 <15 mins duration max 0.025ppm.  
**Operational issues / causes observed:** Odour monitors being calibrated and maintained.  
**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.

**Friday 5<sup>th</sup> November 2021**

**DAY SHIFT:**  
**Temp:** Cool.  
**Weather:** Cloudy.  
**Odour Readings:** All OMU's in operation.  
**Time:** 17:30.  
**Observations / Customer Complaint:** OM5 5 at 09:35-09:48 but <15 mins duration, max 0.016ppm.  
**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:** OM5 0.015ppm @ 21.35 <15 minutes duration.  
**Operational issues / causes observed:** Blank.  
**Actions taken:** Blank.

**Saturday 6<sup>th</sup> 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:** Overcast night.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** OM3 01:08 till 01:22; OM8 @ 02:32 till 02:46.

**Operational issues / causes observed:** No issues found.

**Actions Taken:** Site checked for odours & found no abnormal odours found.

**Sunday 7<sup>th</sup> November 2021**

**DAY SHIFT:**

**Temp:** Cool.

**Weather:** Cloudy.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** OM4 spiked at 10:20-10:32 <15 minutes duration max 0.015ppm & at 17:33-17:48 max.

**Operational issues / causes observed:** Blank.

**Actions taken:** No odours found in vicinity of OM4.

**NIGHT SHIFT:**

**Temp:** Cold.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** OM5 spiking all night.

**Operational issues / causes observed:** Low level sewer in main drive venting.

**Actions Taken:** No action taken.

**Monday 8<sup>th</sup> November 2021**

**DAY SHIFT:**

**Temp:** Cool.

**Weather:** Sunny W/ Patchy clouds.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** OM5 0.017ppm 17:20 on going.

**Operational issues / causes observed:** Sewer vent on drive.

**Actions taken:** Blank.

**NIGHT SHIFT:**

**Temp:** Cold.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** OM5 max 0.022ppm three times.

**Operational issues / causes observed:** Smell from PAS.

**Actions Taken:** PAS over flows checked and all OK.

**Tuesday 9<sup>th</sup> November 2021**

**DAY SHIFT:**

**Temp:** Cool.

**Weather:** Sunny W/ Patchy clouds.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** OM5 0.016ppm 07:36-07:51

**Operational issues / causes observed:** Smell from sewer vent on drive.

**Actions taken:** Blank.

**NIGHT SHIFT:**

**Temp:** Unable to read data.

**Weather:** Unable to read data.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** OM5 spiked at 23:07-23:36



max 0.015ppm.

**Operational issues / causes observed:** Unable to read data.

**Actions Taken:** Unable to read data.

### **Sludge Dip Records**

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
05/11/2021	0	946	885	1831	910	2741
08/11/2021	0	1100	1030	2130	1236	3366

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 12 imports of sludge per day in the preceding week.

### **No.5 Pumping Station**

The door and one window 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 is starting to deteriorate again.

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 one of these skips.

TW were again requested to change these skips and ensure they are kept covered when being used.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place 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 out of service.

**Digesters 6** - Was in service - weak low sloppy seal - No evidence of spill.

**Digester 7** - Was in service - weak low sloppy seal - No evidence of spill.

**Digester 8** - Was in service - weak low sloppy seal - No evidence of spill.

**Digester 9** - Was in service - weak low sloppy seal - No evidence of spill.

**Digester 10** - Was in service - weak low sloppy seal - No evidence of spill.

**Digester 11** - Was in service - weak low sloppy seal - No evidence of spill.

<p><b>Digester 12</b> - Was out of service.</p> <p><b>Digesters 13</b> - Was in service - Weak low seal gassing off - No evidence of spill.</p> <p><b>Digester 14</b> - Was in service - Weak low seal gassing off - No evidence of spill.</p> <p><b>Digester 15</b> - Was out of service.</p> <p><b>Digester 16</b> - Was in service - Weak low seal gassing off - Evidence of previous spill that required cleaning.</p> <p><b>Digester 17</b> - Was in service - Weak low seal gassing off - No evidence of spill.</p> <p><b>Digester 18</b> - Was out of service.</p> <p><b>Digester 19</b> - Was in service - Weak low seal gassing off - No evidence of spill.</p> <p><b>Digester 20</b> - Was in service - Weak low seal gassing off - No evidence of spill.</p> <p>Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.</p>	
<p><b><u>GENERAL</u></b></p> <p><b><u>Final Settlement Tanks East Side of Works</u></b></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).</p> <p>All tanks were in operation at the time of the inspection. It was noted that all 8 tanks had varying amounts of green algae and/or scum on tanks surface, some of which appeared lumpy. However, no odour was</p>	

present.

### **Skips**

On the East side there two 14yds open skips.

One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.

Thames were again requested to remove these skips and ensure they are kept covered when in use.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin to cover it was lying on the floor.

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

### **East Side Screen House**

The first set of doors to the screen house 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 50% of its length, there was a significant number of weeds were growing out of it and through the steel grating.

It was noted that FST's 61 to 64 were in a very poor condition. Surface sludge was evident in some of the tanks and a hose was being used to break this up.

A significant sludge spill had recently occurred in the area around the tanks which required cleaning.

### **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. All had some surface scum that appeared to be fatty type algae.

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, rag and other debris.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

During the inspection it was also noted that a spillage(s) had taken place by the plant and machinery and pipework was splashed with sludge, which appeared to have clogged the box channel.

### **Section 106 agreement**

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

### **West Side Aeration Lanes**

The previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was 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:**

**Odour Control Unit (OCU) performance monitoring: 09/11/2021  
(Results supplied by TW are ppb and need converting to ppm)**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.00 0.02 0.00	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
Thickening plant outlet	0.12 0.07 0.08	0.6	Unknown
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Unknown
Pasteurisation (OCU 12)	0.04 0.02 0.00	0.5	Unknown
Transfer PS inlet	81.88 78.61 70.33	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown

GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown	
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# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 2<sup>nd</sup> November (13:00pm)

**Attendees:** Mr Z Kadri (London Borough of Hounslow), Caitlin Simmonds (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was empty however some patches of dry grit across the tank. Hoppers 1, 2 & 3 were drained down.

**Tank 1B** was empty however wet patches of grit to the sides of the tank. Hoppers 1, 2 & 3 were drained down.

**Tank 2A** was empty however wet patches of grit to the sides of the tank. Hoppers 1, 2 & 3 were drained down.

**Tank 2B** was empty however wet patches of grit to the sides of the tank. Hoppers 1, 2 & 3 were drained down.

**Tank 3A** was empty however thick layer of grit across the surface of the tank. Hoppers 1, 2 & 3 were drained down.

**Tank 3B** was empty however wet patches of grit across the surface of the tank. Hoppers 1, 2 & 3 were full and needed draining down.

**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 however hoppers 1, 2 & 3 were full and needed draining down.

**Tank 6B** was empty but had a thick layer of sludge and grit across the surface of the tank. Hoppers 1, 2 & 3 was in need of draining down.

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

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

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

**Tank 8B** was empty and had patches of thick sludge and grit across the surface of the tank. Hoppers 1, 2 & 3 was 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 (H<sub>2</sub>S) for all monitors that were providing data on 2/11/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:39pm
Monitor 2	0.001	ppm	13:39pm
Monitor 3	0.000	ppm	13:39pm
Monitor 4	0.004	ppm	13:39pm
Monitor 5	0.011	ppm	13:39pm
Monitor 6	0.000	ppm	13:39pm
Monitor 7	0.004	ppm	13:39pm
Monitor 8	0.007	ppm	13:39pm
Monitor 9	0.000	ppm	13:39pm
Monitor 10	0.000	ppm	13:39pm
Monitor 11	0.000	ppm	13:39pm
Monitor 12	0.000	ppm	13:39pm
Monitor 13	0.000	ppm	13:39pm
Wind Speed	4.768	mph	13:39pm
Wind Direction	268.087		13:39pm

### Odour Log (Thames)

#### Wednesday 27<sup>th</sup> October 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.

**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 28<sup>th</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** 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 29<sup>th</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**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.** Overcast night.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** OM3 spiked to 0.021ppm at 17:35-17:50.  
**Operational issues / causes observed.** Blank.  
**Actions taken.** Blank.

**Saturday 30<sup>th</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**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.** Overcast night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:00.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions taken.** Blank.

**Sunday 31<sup>st</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**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.** 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.

### **Monday 1<sup>st</sup> November 2021**

#### **DAY SHIFT**

**Temp.** Cool

**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.** Cold.

**Weather.** Clear Night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 spiked to 0.026 at 18:50.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

### **Tuesday 2<sup>nd</sup> November 2021**

#### **DAY SHIFT**

**Temp.** Cool.

**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.** Cold.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 0.020ppm 19:20, OM8 0.024ppm 19:17, OM4 0.019ppm 20:03.

**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 <sup>3</sup>					
OMP limit	500					
29/10/2021	0	885	885	1770	1425	3195
01/11/2021	0	1236	1030	2266	1577	3843
03/11/2021	0	1236	1030	2266	1425	3691

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 **12 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 good low sludgy 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. 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 as usual.

**Digester 8** was in service and had a low thick sludgy seal. No evidence of previous spillages. Coping stones were tidy.

**Digester 9** was in service and had a high thick sludgy seal – no evidence of spillage.

**Digester 10** was in service and had a low wet moist pasty seal. No signs of any spillages.

**Digester 11** was in service and had a low thick sludgy seal. No signs of previous spillages and coping stones were clean.

**Digester 12 Out of service.**

**Digester 13** was in service and had a thick sludgy 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 wet seal that was bubbling off minimal amounts gas. No signs of previous spillage.

**Digester 17** was in service and had a low level thick sludgy stable seal.

**Digester 18 Out of service.**

**Digester 19** was in service and had a low level sludgy seal- no signs of previous spillages.

**Digester 20** was in service and had a wet seal. it was noted that the seal level was low approx. 2ft below coping stone. No sign of previous spillages.

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 surfaces 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. No odours or offensive odours witnessed.

**Skips**

On the East side there were two 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

There was one 20yds open bulk carrier that contained grit, no tarpaulin cover was in place.

There was one was one 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 a 14yds Biffa skip in situ filled with some inert material and general waste. The skip was covered with tarpaulin.

### **East Side Screen House**

The doors at one end of the screen house were open at the time of the inspection. No staff were seen 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 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 10 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. 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.

**Odour Control Unit (OCU) performance monitoring: 02/11/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
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	0.21ppm 0.18ppm 0.19ppm	0.6	Yes
New West inlet (OCU 11)	0.00ppm 0.00ppm 0.00ppm	0.5	No
Pasteurisation (OCU 12)	0.33ppm 0.28ppm 0.27ppm	0.5	Yes
Transfer PS inlet	0.81ppm 0.78ppm 0.96ppm	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



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 26 <sup>th</sup> October 2021 (1pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow), Ms C Simmonds (Thames Water).	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hopper 1 was approx. 20% full, hoppers 2 and 3 were both approx. 5% full.</p> <p><b>Tank 1B</b> was empty but filthy. The tank appeared to have been recently returned and had wet odorous sludge along the left hand side and top end of the tank. Hopper 1 was approx. 15% full, hopper 2 was approx. 5% full and hopper 3 was approx. 40% full. Hopper 3 required draining down.</p> <p><b>Tank 2A</b> was empty but had dry grit along the entire right hand side of the tank. Hoppers 1 and 2 were both approx. 10% full, hopper 3 was approx. 5% full.</p> <p><b>Tank 2B</b> was empty but had dry grit along the entire left hand side of the tank. Hopper 1 was approx. 70% full, hopper 2 was approx. 30% full and hopper 3 was approx. 45% full.</p>	

All hoppers required draining down.

**Tank 3A** was empty but had wet odorous sludge across approx. 70% of the tanks surface.

Hoppers 1 and 3 were both approx. 40% full, hopper 2 was approx. 15% full.

All hoppers drained down.

**Tank 3B** was empty but filthy. The tank appeared to have been recently returned and had thick wet odorous sludge was across the entire tanks surface, which appeared very gritty in places.

Hoppers 1, 2 and 3 were all completely full and overflowing.

All hoppers required draining down.

**Tanks 4A, 4B, 5A & 5B** All tanks are covered and odour controlled. Still unable to gauge condition of these tanks as the internal lighting system is still not working.

**Tank 6A** was empty and relatively clean except for an area of dry grit on the right hand side at the bottom end of the tank

Hoppers 1, 2 and 3 were all completely full and contained stagnant odorous effluent.

All hoppers required draining down.

**Tank 6B** was empty but had an area of wet gritty sludge along the left hand side and the bottom end of the tank

Hoppers 1, 2 and 3 were all virtually full and contained stagnant effluent that was noticeably odorous.

All hoppers required draining down.

**Tank 7A** was empty but had effluent back-filling from the hoppers which were overflowing. The first half of the tank had dried grit and wet sludge that was green in areas.

Hoppers 1, 2 and 3 were therefore full and noticeably odorous.

All hoppers required draining down.

**Tank 7B** was empty but had thick grit and patchy green sludge along the left hand side and top end of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) all appeared clogged with grit and sludge that was noticeably odorous, rag was also hanging from the

metal framework within the tank.

**Tank 8A** had effluent that was back-filling from the hoppers (all of which were full), that was inky black in colour and covering >50% of the tanks surface.

All hoppers required draining down.

**Tank 8B** was empty but had grit and sludge along the left hand side, middle section and top end of the tank, some of which was green in colour and noticeably odorous.

Hoppers 1, 2 and 3 were all completely full.

All hoppers required draining down.

**Storm Feed Channel** - The condition of the storm channel appears to be steadily deteriorating.

Although the level of effluent in both feed channels was low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were very odorous in places.

### **Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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



### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors were not providing data on 28/09/2021 at the time of the inspection due to a complete failure of the SCADA system.

TW advised an engineer was due on site shortly to try and rectify the problem

Monitor 1	-----	ppm	13:00pm
Monitor 2	-----	ppm	13:00pm
Monitor 3	-----	ppm	13:00pm
Monitor 4	-----	ppm	13:00pm
Monitor 5	-----	ppm	13:00pm
Monitor 6	-----	ppm	13:00pm
Monitor 7	-----	ppm	13:00pm
Monitor 8	-----	ppm	13:00pm
Monitor 9	-----	ppm	13:00pm
Monitor 10	-----	ppm	13:00pm
Monitor 11	-----	ppm	13:00pm
Monitor 12	-----	ppm	13:00pm
Monitor 13	-----	ppm	13:00pm
Wind Speed	-----	mph	13:00pm
Wind Direction	-----		13:00pm

### Odour Log (Thames)

**Wednesday 20<sup>th</sup> October 2021**

#### **DAY SHIFT**

**Temp.** Warm.

**Weather.** Rain with s/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.** Cool.  
**Weather.** Rain.  
**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 21<sup>st</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.  
**Weather.** Sunny w/patchy clouds.  
**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.

**Friday 22<sup>nd</sup> October 2021**

**DAY SHIFT**

**Temp.** Cool.  
**Weather.** Sunny w/patchy clouds.  
**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 found or reported.

**Operational issues / causes observed.** Blank.

**Actions taken.** Blank.

**Saturday 23<sup>rd</sup> October 2021**

**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.

**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.

**Sunday 24<sup>th</sup> October 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny w/patchy 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.

**Monday 25<sup>th</sup> October 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny w/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.** Patchy rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 spiked at 19:03-19:17 but <15 mins duration, max 0.024ppm.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Tuesday 26<sup>th</sup> October 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.** Cool.

**Weather.** Rain w/sunny spells.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**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 <sup>3</sup>					
OMP limit	500					
20/10/2021	0	885	885	1770	2124 <b>2094*</b>	3894 <b>3864*</b>
25/10/2021	0	946	740	1686	456	2142

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.

\* **Incorrect figures entered on Thames Water paperwork.**

### Imported Sludge

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

### No.5 Pumping Station

The door and one window 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 is starting to deteriorate again.

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 one of these skips.

TW were again requested to change these skips and ensure they are kept covered when being used.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place 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 out of service.

**Digesters 6, 7, 8, 9, 10 and 11** were all in service and had a very wet seals that was bubbling off minimal amounts of gas, it was noted that all of the seal levels appeared abnormally low.

**Digester 12** was out of service.

**Digesters 13 and 14** were both in service and had a very wet seals that was bubbling off minimal amounts of gas, it was noted that both of the seal levels appeared abnormally low.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal that was bubbling off minimal amounts of gas, it was noted that the seal level appeared abnormally low.

There was evidence of a very recent spill that required cleaning.

**Digester 17** was in service and had a very wet seal that was bubbling off minimal amounts of gas, it was noted that the seal level appeared abnormally low.

**Digester 18** was out of service.

**Digester 19** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 20** was in service and had a very wet seal that was bubbling off minimal amounts of gas, it was noted that the seal level appeared abnormally low.

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

**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. It was noted that all 8 tanks had varying amounts of green algae and/or scum on tanks surface, some of which appeared lumpy. However, no odour was present.

**Skips**

On the East side there two 14yds open skips.  
One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.



Thames were again requested to remove these skips and ensure they are kept covered when in use.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin to cover it was lying on the floor.

Two of the three roller shutter doors on the East side grit building were open and a Bobcat Skidsteer loader was parked inside.

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 first set of doors to the screen house were open at the time of the inspection, TW were unable to confirm why they were open.

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 50% of its length, there was a significant number of weeds were growing out of it and through the steel grating.

It was noted that FST's 61 to 64 were in a very poor condition. Surface sludge was evident in some of the tanks and a hose was being used to break this up.

A significant sludge spill had recently occurred in the area around the tanks which required cleaning.

#### **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. All had some surface scum that appeared to be fatty type algae.

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, rag and other debris.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

During the inspection it was also noted that a spillage(s) had taken place by the plant and machinery and pipework was splashed with sludge, which appeared to have clogged the box channel.

### **Section 106 agreement**

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

### **West Side Aeration Lanes**

The previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged with floating debris.

**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:**

No OCU data was available due to high numbers of Covid cases amongst day ops staff.

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	Not Available	0.2	Unknown
East OCU	Not Available	0.05	Unknown
West inlet OCU	Not Available	0.05	Unknown
Thickening plant outlet	Not Available	0.6	Unknown
New West inlet (OCU 11)	Not Available	0.5	Unknown
Pasteurisation (OCU 12)	Not Available	0.5	Unknown
Transfer PS inlet	Not Available	Unknown	Unknown
Transfer PS outlet	Not Available	0.6	Unknown
GBT Plant OCU Outlet	Not Available	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 19 <sup>th</sup> October 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Neil Bristow (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – 75% of tank covered by grit and sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 60% full, Hopper 2 approx. 10% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 60% full, Hopper 2 approx. 30% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> - Tank empty – 30% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – 50% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 40% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 30% full – requires draining/over-pumping.</p>	

**Tank 3B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty and flushed clean – All Hoppers full – requires draining/over-pumping.

**Tank 6B** – Tank empty – 80% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 50% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – 75% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 7B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 8A** – Tank backfilling and approx. 90% of surface of tank covered by effluent water.

**Tank 8B** – Tank backfilling and approx. 75% of surface of tank covered by effluent water.

**Feed Channel** - The level of effluent in both feed channels was approximately 10% capacity - no local odours.

**Complaints**

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

**The Council directly received no complaints by email in the**

**preceding week:**

**The Council received no complaints by email from MRAG.**

***Thames Water controller advised that they had received no direct complaints in the preceding week.***

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	.000	ppm	13:11
Monitor 2	.001	ppm	13:11
Monitor 3	.000	ppm	13:11
Monitor 4	.000	ppm	13:11
Monitor 5	.004	ppm	13:11
Monitor 6	.003	ppm	13:11
Monitor 7	.003	ppm	13:11
Monitor 8	.004	ppm	13:11
Monitor 9	.000	ppm	13:11
Monitor 10	.000	ppm	13:11
Monitor 11	.000	ppm	13:11
Monitor 12	.000	ppm	13:11
Monitor 13	.000	ppm	13:11
Wind Speed	7.5	mph	13:11
Wind Direction	210°		13:11

**Odour Log (Thames):**

**Wednesday 13<sup>th</sup> October 2021:**

**AM** – Warm – Sunny with patch Clouds.

All ODU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 14<sup>th</sup> October 2021:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 15<sup>th</sup> October 2021:**

**AM** – Warm – Sunny with patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM3 0.015ppm 00:36-00:50."

**Operational Issues/Causes:** "No odour issues on site."

**Actions:** No data.

**Saturday 16<sup>th</sup> October 2021:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Sunday 17<sup>th</sup> October 2021:**

**AM** – Cloudy – With Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 0.015ppm <15 minutes."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 18<sup>th</sup> October 2021:**

**AM** – Cool – Patchy Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** –Cool – Patchy Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 19<sup>th</sup> October 2021:**

**AM** – Cool – Cloudy.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."



**Operational Issues/Causes:** No data.

**Actions:** No data.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
<b>OMP limit</b>	<b>500</b>					
13/10/21	0	885	885	1770	1761	3531
15/10/21	0	885	885	1770	1425	3195
18/10/21	0	1030	885	1915	1568	3483

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** – Out of use.

**Digester 6** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 9** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**Digester 10** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 12** - In use – seal level approx. 6ft below coping stones – good seal.

**Digester 13** - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 18** – Out of use.

**Digester 19** – In use – seal level approx. 6ft below coping stones – good seal.

**Digester 20** - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

All doors open at the time of inspection.

### **Imported Sludge**

Average of ten imports daily for preceding seven days.

### **Final Settlement Tanks East Side of Works**

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

### **Skips**

1x open container grit skip (50 % full) uncovered, 1x enclosed container skip (empty), 2x 8-yard General Waste skip (uncovered).

2 x 6-yard covered rag skips (50% full) & 1x 6-yard General Waste skip at rear of Pasteurisation Plant (covered).

1x enclosed container skip (50% full) in Service Road at rear of Sludge Screen House.

### **East Side Raw Sludge Screen House**

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left)

– requires jetting (TW advise that there is continuing flow below surface).

### **Pasteurisation Plant**

Eight streams running.

### **West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

### **New Works (West Side) Battery E**

Feed Channel for Aeration Lanes – recently jetted and all Lanes clear.  
Tank performance progressively improving.

### **Odour Control Unit (OCU) performance monitoring – No data**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	No data	0.05	Unknown
West inlet OCU	No data	0.05	Unknown
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	No data	0.5	Unknown

New West inlet (OCU11)	No data	0.5	Unknown
Pasteurisation Plant (OCU12)	No data	0.5	Unknown
GBT Plant OCU Outlet	No data	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 12<sup>th</sup> October (13:34pm)

**Attendees:** Mr L Phillips (London Borough of Hounslow), Ms Caitlin Simmonds (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was empty 90% of the tank covered in sludge tank will need flushing. All hoppers full and need draining.

**Tank 1B** was empty 90% of the tank covered in sludge tank will need flushing. Hoppers 1 and 3 were full and needed draining, hopper 2 had been drained to its lowest point.

**Tank 2A** was empty and clean, all hoppers had been drained to lowest point.

**Tank 2B** was empty and clean, all hoppers had been drained to lowest point.

**Tank 3A** was empty, sludge build up at the end of the tank (hopper end), all hoppers full and needed draining.

**Tank 3B** was empty, sludge build up at the end of the tank (hopper end), all hoppers full and needed draining.

**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 clean, however all hoppers full and needed draining.

**Tank 6B** was empty clean, however all hoppers full and needed draining

**Tank 7A** was empty but 80% of the tank surface covered by sludge, tank will need flushing. All hoppers full and needed draining.

**Tank 7B** was empty and clean, however all hoppers full and needed draining.

**Tank 8A** was empty and clean, however all hoppers full and needed draining.

**Tank 8B** was empty and clean however all hoppers full and needed draining.

**Storm Feed Channel** - The level of effluent in both feed channels was at least 50% and was dark and murky 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 (H<sub>2</sub>S) for all monitors that were providing data on 12/10/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:19pm
Monitor 2	0.001	ppm	13:19pm
Monitor 3	0.000	ppm	13:19pm
Monitor 4	0.004	ppm	13:19pm
Monitor 5	0.000	ppm	13:19pm
Monitor 6	0.000	ppm	13:19pm
Monitor 7	0.000	ppm	13:19pm
Monitor 8	0.004	ppm	13:19pm
Monitor 9	0.003	ppm	13:19pm
Monitor 10	0.000	ppm	13:19pm
Monitor 11	0.000	ppm	13:19pm
Monitor 12	0.000	ppm	13:19pm
Monitor 13	0.000	ppm	13:19pm
Wind Speed	4.540	mph	13:19pm
Wind Direction	283.506		13:19pm

### Odour Log (Thames)

#### Wednesday 6<sup>th</sup> October 2021

#### **DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny/ W patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** No odour issues.

**Operational issues / causes observed:** Able onsite calibrating monitors.

**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.  
**Operational issues / causes observed:** Blank.  
**Actions Taken:** Blank.

**Thursday 7<sup>th</sup> October 2021**

**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.  
**Operational issues / causes observed:** Able on site calibrating monitors.  
**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.

**Friday 8<sup>st</sup> October 2021**

**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.  
**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 9<sup>th</sup> October 2021**

**DAY SHIFT:**

**Temp:** Warm.  
**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:** Cool.  
**Weather:** Clear night.  
**Odour Readings:** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint:** OM5 0.015 from 18:04 – 18:32.  
**Operational issues / causes observed:** Blank.  
**Actions taken:** Blank.

**Sunday 10<sup>th</sup> October 2021**

**DAY SHIFT:**

**Temp:** Warm.  
**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:** 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 11<sup>th</sup> October 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ Patchy clouds.

**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.

**Tuesday 12<sup>th</sup> October 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ Patchy clouds.

**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:** No odour issues.

**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 <sup>3</sup>					
OMP limit	500					
**/**/****	*	*	*	*	*	*
**/**/****	*	*	*	*	*	*

\*\* No sludge Dip records provided.

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. 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 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 out of service.

**Digester 6** was in service but had a weak seal. No evidence of spill.

**Digester 7** was in service but had a weak seal. No evidence of spill.

**Digester 8** was in service but had a weak seal. No evidence of spill.

**Digester 9** was in service but had a weak seal. No evidence of spill.

**Digester 10** was in service but had a weak seal. No evidence of spill.

**Digester 11** was in service but had a weak seal. No evidence of spill.

**Digester 12** was out of service.

**Digester 13** was in service but had a weak seal. No evidence of spill.

**Digester 14** was in service but had a weak seal. No evidence of spill.

**Digester 15** was out of service.

**Digester 16** was in service but had a weak seal. No evidence of spill.

**Digester 17** was in service but had a weak seal. No evidence of spill.

**Digester 18** was out of service.

**Digester 19** was out of service.

**Digester 20** was in service but had a weak seal. No evidence of spill.

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 surfaces 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. No odours or offensive odours witnessed.

### **Skips**

On the East side there were two 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

There was one 20yds open bulk carrier that contained grit, no tarpaulin cover was in place.

There was one 14yds skip adjacent to the Sludge Import area (West of the works) that contained inert material (Large metal cylinder ducting) . There was no tarpaulin cover over or near the skip.

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



### **East Side Screen House**

The doors at one end of the screen house were open at the time of the inspection. No staff were seen 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 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**

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 at E Battery however it was noted dividing walls were a lot more visible then previously observed.

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.

**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: 12/10/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.07 0.03 0.05	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
Thickening plant outlet	0.07 0.06 0.09	0.6	Unknown

New West inlet (OCU 11)	0.00 0.00 0.02	0.5	Unknown	
Pasteurisation (OCU 12)	0.00 0.00 0.03	0.5	Unknown	
Transfer PS inlet	99.31 97.27 91.02	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown	
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown	



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** 21<sup>st</sup> September 2021

**Attendees:** Mr Steven Maunders and Miss Caitlin Simmonds (Thames Water)

<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 60% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> - Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – Hopper 1 empty, Hoppers 2 &amp; 3 approx. 90% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers empty.</p> <p><b>Tank 3B</b> – Tank backfilling due to faulty return valve – approx. 70% of</p>	

surface covered in effluent. Remainder of tank covered in grit and sludge – requires further flushing.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 60% full – requires draining/over-pumping.

**Tank 6B** – Tank empty and flushed clean – Hopper 1 full, Hoppers 2 & 3 approx. 40% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers empty.

**Tank 7B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.

**Tank 8A** – Tank empty and flushed clean – All Hoppers full – requires draining/over-pumping.

**Tank 8B** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 90% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

### Complaints

**The Council directly received one complaint by telephone in the preceding week – 16/09/21 01:17 from the area of Weavers Close – details were passed through to the out of hours duty Officer and a direct response was sent to the Resident.**

**The Council directly received three complaints by email in the preceding week:**

**15/09/21 13:42 from the area of Hall Road – generic complaint and not relating to specific incidence – correspondence sent.**

**16/09/21 01:45 from the area of Weavers Close – this was a duplication of the telephone contact referred to above.**

**20/09/21 22:12 from the area of Harvesters Close – generic complaint and not relating to specific incidence – correspondence sent.**

**The Council received no complaints by email from MRAG.**

***Thames Water controller advised that they had received no direct complaints in the preceding week.***

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	000	ppm	13:31
Monitor 2	.001	ppm	13:31
Monitor 3	000	ppm	13:31
Monitor 4	000	ppm	13:31
Monitor 5	000	ppm	13:31
Monitor 6	000	ppm	13:31
Monitor 7	003	ppm	13:31
Monitor 8	000	ppm	13:31
Monitor 9	003	ppm	13:31
Monitor 10	003	ppm	13:31
Monitor 11	000	ppm	13:31
Monitor 12	000	ppm	13:31
Monitor 13	000	ppm	13:31
Wind Speed	0.2	mph	13:31
Wind Direction	73.6°		13:31

**Odour Log (Thames):**

**Tuesday 14<sup>th</sup> September 2021:**

**AM** – Warm – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** "Storm tanks going to river".

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** "Storm Tanks returning."

**Actions:** No data.

**Wednesday 15<sup>th</sup> September 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** "Storm Tanks returning."

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 16<sup>th</sup> September 2021:**

**AM** – Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 17<sup>th</sup> September 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM3 spiked at 01:20-01:34 max 0.021ppm."

**Operational Issues/Causes:** "OCU stack value is 0.85ppm which is above."

**Actions:** No data.

**Saturday 18<sup>th</sup> September 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM3 Max 0.038ppm between 20:48-21:34."- OCU showing high output from scrubbers 967ppb."

**Actions:** "Checked area around new West – no obvious odours."

**Sunday 19<sup>th</sup> September 2021:**

**AM** – Warm Rainy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** –Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.



**Actions:** No data.

**Monday 20<sup>th</sup> September 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 21<sup>st</sup> September 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "Odour complaint received from Mogden Lane @ 22:15."

**Operational Issues/Causes:** No data.

**Actions:** "Site inspection made. No evidence of odour and no spike on Trends."

**Wednesday 22<sup>nd</sup> September 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "OM3 Max 0.029ppm @ 16:04-16:17."

**Operational Issues/Causes:** "FST 85 Draining."

**Actions:** "Sludge on Tank being hosed down."

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
15/09/21	0	1236	305	1541	608	2149
17/09/21	0	946	740	1686	456	2142
20/09/21	0	946	740	1686	608 TW figure 456	2294 TW figure 2142

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** – Out of use.

**Digester 6** - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 4ft below coping stones - seal

weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously.

**Digester 9** - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

**Digester 10** - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 12** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level at level of coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

One door ajar. All remaining doors closed at the time of inspection.

### **Imported Sludge**

Average of ten imports daily for preceding seven days.

### **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – Tank 75 = 25% of surface covered in “duck weed”.

### **Skips**

1x open container grit skip (20 % full) uncovered, 1x 8-yard general waste skip (partially covered), 2x 8-yard General Waste skip (uncovered), 1x 8-yard General Waste skip (uncovered and additional waste alongside at base of Battery E staircase, 2x 6-yard covered rag skips & 1x 6-yard General Waste skip at rear of Pasteurisation Plant (covered), 1x enclosed container skip (empty) in Service Road at rear of Sludge Screen House. 1x enclosed container skip (empty) & 1x open container skip in Service Road alongside PST's 9-12.

### **East Side Raw Sludge Screen House**

Doors open at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left)

– requires jetting (TW advise that there is continuing flow below surface).

**Pasteurisation Plant**

Nine streams running.

**West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**New Works (West Side) Battery E**

Feed Channel for Aeration Lanes – recently jetted. 2x piles of rag left on walkway. Tank performance progressively improving.

**Odour Control Unit (OCU) performance monitoring – 20/09/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliance
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
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	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown

Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	101.9 98.6 99.9	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.003 0.00 0.01	0.5	Yes
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 14<sup>th</sup> September 2021 (13:12pm)

**Attendees:** Mr L Phillips (London Borough of Hounslow), Mr Tim Palmer (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was full all amajests in operation during inspection.

**Tank 1B** Was full amajets 1 and 3 in fully operational amajet 2 not operational.

**Tank 2A** was full all amajests in operation during inspection.

**Tank 2B** was full all amajests in operation during inspection..

**Tank 3A** was full all amajests in operation during inspection.

**Tank 3B** was full all amajests in operation during inspection.

**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 clean and empty however all three hoppers were full of effluent and covered with algae.



**Tank 6B** Was full amajets 1 and 2 in fully operational amajet 3 not operational.

**Tank 7A** Was full amajets 1 and 3 in fully operational amajet 2 not operational.

**Tank 7B** was full all amajests in operation during inspection.

**Tank 8A** was full all amajests in operation during inspection.

**Tank 8B** was full all amajests in operation during inspection.

**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 3 complaints by telephone in the preceding week.**

#### **Ref: A20661**

A complaint was received via telephone on the 08/09/2021 at approx. 10:34 from Wainwright Grove area of Isleworth. The duty Officer called the Comp back at 11:31 to advise that a visit would be made to the location. A monitoring visit was made at 11:45 the officer noted highest average reading was 0.003ppm. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.010ppm.

#### **Ref: A20676**

A complaint was received via telephone on the 08/09/2021 at approx. 13:09 from Hall Road area of Isleworth. The Duty Officer carried out a visit to the area and took readings at the location the highest average reading was 0.003ppm. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.09ppm.

**Ref: A20957**

A complaint was received via telephone on the 13/09/2021 at approx. 15:38 from Hall Road area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.09ppm.

**The Council received 7 complaints via the on-line web system and 1 complaint via email in the preceding week.**

**Ref: A20616:**

A complaint was received via online portal on the 07/09/2021 at approx. 09:41 from Whitton Dene area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.08ppm.

**Ref: A20638:**

A complaint was received via online portal on the 07/09/2021 at approx. 18:13 from Wainwright Grove area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.05ppm.

**Ref:A20642:**

A complaint was received via online portal on the 07/09/2021 at approx. 18:31 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.06ppm.

**Ref: A20665**

A complaint was received via online portal on the 08/09/2021 at approx. 11:32 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.01ppm.

**Ref: A20679**

A complaint was received via online portal on the 08/09/2021 at approx. 13:44 from Heldman Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.05ppm.

**Ref: A20844**

A complaint was received via online portal on the 11/09/2021 at approx. 13:53 from Dawes Avenue area of Isleworth. An email was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.010ppm.

**Ref: A20949**

A complaint was received via online portal on the 13/09/2021 at approx. 14:31 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.06ppm.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 14/09/2021 at the time of the inspection are below.

Monitor 1	0.0003	ppm	13:14pm
Monitor 2	0.001	ppm	13:14pm
Monitor 3	0.000	ppm	13:14pm
Monitor 4	0.000	ppm	13:14pm
Monitor 5	0.000	ppm	13:14pm
Monitor 6	0.000	ppm	13:14pm
Monitor 7	0.003	ppm	13:15pm
Monitor 8	0.000	ppm	13:15pm
Monitor 9	0.003	ppm	13:15pm
Monitor 10	0.003	ppm	13:15pm
Monitor 11	0.000	ppm	13:15pm
Monitor 12	0.000	ppm	13:15pm
Monitor 13	0.000	ppm	13:15pm
Wind Speed	0.210	mph	13:15pm
Wind Direction	13.658		13:15pm

### Odour Log (Thames)

**Sunday 5<sup>th</sup> September 2021**

#### **DAY SHIFT**

**Temp:** Warm.

**Weather:** SunnyW/ patchy clouds.

**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:** No odour issues.  
**Operational issues / causes observed:** Blank.  
**Actions Taken:** Blank.

**Monday 6<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Hot

**Weather:** Sunny W/ 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:** Warm.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint:** Odour complaint from TW3 Heldmann Close @ 21:30 – location to the West of the Works. OM3 spiked 0.058ppm 20:03 – 20:48. OM5 0.018ppm 20:18 – 20:48 0.021ppm 22:0. – 22:19.

**Operational issues / causes observed:** Site inspection made. OCU11 discharging high odour from stack still 1359ppb.

**Actions Taken.** Blank.

**Tuesday 7<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Hot.

**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:** Warm.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint:**

OM3 spiked to 0.024 18:32 – 18:48.

**Operational issues / causes observed.** No source found.

**Actions taken:** Blank.

**Wednesday 8<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Hot.

**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:** Warm.

**Weather:** Overcast.

**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 9<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ patchy clouds.

**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.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** No odour issues.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Friday 10<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ patchy cloud.

**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:**

No odour issues found or reported.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank

**Saturday 11<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ patchy clouds.

**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:**

No odour issues found or reported..

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Sunday 12<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Cool.

**Weather:** Clear night.

**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:**

OM5 spiked at 19:19 – 19:33 max 0.021ppm OCU 11 stack output 1.22ppm which is above OM3 spiked at 21:17 – 21:34 max 0.035ppm trigger value.

**Operational issues / causes observed:** Blank.



**Actions Taken:** Blank.

**Monday 13<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Cloudy.

**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 spiked at 21:04 – 21:18 but 15 mins duration max 0.018ppm.

**Operational issues / causes observed:** OCU11 stack output 1.33ppm which is above trigger value.

**Actions Taken:** Blank.

**Tuesday 14<sup>th</sup> September 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Rain.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

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

**Operational issues / causes observed:** Storm tnks filled going to river.

**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:** 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 m <sup>3</sup>					
OMP limit	500					
08/09/2021	0	946	1030	1976	912	2888
13/09/2021	0	946	885	1831	912	2743

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 15 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 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 low wet seal- No evidence of recent sludge spillages.

**Digester 7-** was in service and had a low sludgy seal. A spill had 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 had a weak seal. No evidence of spill.

**Digester 9-** Was in service had a weak seal. No evidence of spill.

**Digester 10-** Was in service had a weak seal. No evidence of spill.

**Digester 11-** Was in service had a weak seal. No evidence of spill.

**Digester 12-** Was in service had a weak seal. No evidence of spill.

**Digester 13-** Was in service had a weak seal. No evidence of spill.

**Digester 14-** Was in service had a weak seal. No evidence of spill.

**Digester 15** was out of service.

**Digester 16** was in service and had a wet seal that was bubbling off and erupting in some parts was erupting and spilling on the coping stones.

**Digester 17** was in service and had a low wet seal. Noticeably a lot of weeds and foliage growth around the digester.

**Digester 18 out of service.**

**Digester 19 out of service.**

**Digester 20-** Was in service had a weak seal. No evidence of spill.

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

Advised Tim Palmer TW to report back the matter with overgrown vegetation around the 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 light green surfaces from algae that had settled. There was no evidence of fatty deposits on the surface. The hose on the arm was rotating and clearing off any remaining deposits.

### **Skips on the**

On the East side grit house there were 2 x 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

On the East side grit house there was 1 x red 20yds open bulk carrier that contained grit, no tarpaulin cover was in place. There was 1 x red 20yds closed bulk carrier that was empty and did not look in use. This was placed to the side against the wall.

There was one was 1 x 14yds skip on the west side of the works near the No5 Pumping station which contained general waste however no tarpaulin in place.

On the West side adjacent to the pumping station there was a 1 x 14yds skip filled with some inert material.

### **East Side Screen House**

The doors at both ends of the screen house were closed at the time of the inspection. The roller shutters were also closed.  
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 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. 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**

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 at E Battery 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 – A lot better condition than previous visits. Progress has been made with this channel.

**Odour Control Unit (OCU) performance monitoring: 14/09/2021  
(Results supplied by TW are ppb and need converting to ppm)**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.03	0.2	Unknown

East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.11 0.005	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	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.031 0.028 0.018	0.5	No
Pasteurisation (OCU 12)	0.00 0.017 0.020	0.5	Yes
Transfer PS inlet	96.12 91.00 87.97	Unknown	Unknown
Transfer PS outlet	0.018 0.023 0.013	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown





# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 7<sup>th</sup> September 2021 (13:30pm)

**Attendees:** Mr Z Kadri (London Borough of Hounslow), Mr Andy Carrick (Thames Water) & Roxanne Denny (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was clean, empty and all hoppers 1, 2 and 3 had been drained down.

**Tank 1B** was mostly clean and empty however there was some dried effluent that had settled to the left hand side of the tank. All hoppers 1, 2 and 3 were less than 50% full and needed draining down completely.

**Tank 2A** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 2B** was approx. 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 3A** was empty however the majority of the surface was covered with dried crusty remanence of effluent. Hoppers 1,2 and 3 had effluent in them but all less than 50% and needed draining down.

**Tank 3B** was mostly empty however there was effluent at the hopper end reaching a quarter of the tank due to hoppers overflowing . Hoppers needed draining down and tank needed cleaning.

**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 clean and empty however all three hoppers were full of effluent and covered with algae.

**Tank 6B** was clean and empty. Hopper 1 was full to the brim with effluent however both Hopper 2 and 3 had less than 50% effluent in the tank. approx.

**Tank 7A** was mostly clear however the hoppers were overflowing and had covered 50% of the tank of effluent which was green in colour.

**Tank 7B** was mostly empty of effluent however the surface of the tank was covered in a light grit. The shallow hoppers 1, 2 and 3 were all full of effluent and needed draining down.

**Tank 8A** was clean and tidy however Hoppers 1, 2 and 3 were full of effluent and needed to be drained down.

**Tank 8B** was clean and tidy however Hoppers 1, 2 and 3 were full of effluent and needed to be drained down.

**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 4 complaints by telephone in the preceding week.

The Council received 7 complaints via the on-line web system and 1 complaint via email in the preceding week.

1 of the complaints received were from outside of the London Borough of Hounslow.

**Ref: A20338**

Complaint received VIA telephone on the 31<sup>st</sup> of August at 16:30- Caller lived outside of the Borough. A letter with guidance was sent by the duty officer.

**Ref: A20443**

A complaint was received via online portal on the 3<sup>rd</sup> of September 2021 at approx. 09:41 from Whitton Dene area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.011ppm.

**Ref: A20504**

A complaint was received via telephone on the 3<sup>rd</sup> of September 2021 at approx. 20:55 from Wayne Wright Grove area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.010ppm.

**Ref: A20537**

A complaint was received via online portal on the 4<sup>th</sup> of September 2021 at approx. 12:20 from Harvester Close area of Isleworth. In response the complainant was contacted however the odour had subsided. Nevertheless a monitoring visit was made and odour was noticed by the officer on duty. See next complaint A20537 below for outcome.

**Ref: A20538**

A complaint was received via telephone on the 4<sup>th</sup> of September 2021 at approx. 16:20 from Wayne Wright Grove area of Isleworth. In response the complainant was contacted at 16:51. A monitoring visit was made and subjective assessment conducted it was evident that an odour was noticeable by the officer on duty. From measurement taken the readings demonstrated over ten readings an average of 0.008ppm. A visit was made to Mogden Sewage works at 17:55 as the Duty officer was uncontactable. Eventually the LBH officer made contact with TW duty officer who confirmed there were no spikes and agreed for a patrol of the site.

**Ref: A20512**

A complaint was received via online on the 4<sup>th</sup> of September 2021 at approx. 11:05 from Crofters Close area of Isleworth. A letter was sent to

the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.005ppm.

**Ref: A20521**

A complaint was received via online form on the 4<sup>th</sup> of September 2021 at approx. 20:11 from Ellerdine Road area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike was at 0.007ppm by OM3.

**Ref: A20539**

A complaint was received via telephone on the 5<sup>th</sup> of September 2021 at approx. 10:46 from Harvester Close area of Isleworth. The duty officer attempted to call the complainant back but was unable to get through however a voicemail was left requesting a call back. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike was at 0.005ppm by OM3.

**Ref: A20610**

A complaint was received via online form on the 6<sup>th</sup> of September 2021 at approx. 21:32 from Birch Close area of Hounslow. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike was by OM3 which increased to 0.058ppm at 20:03 and decreased at 20:48.

**Ref: A20614**

A complaint was received via online form on the 6<sup>th</sup> of September 2021 at approx. 21:32 from Selbourne Avenue area of Hounslow. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike was by OM3 which increased to 0.013ppm.

**Ref: A20616**

A complaint was received via online form on the 7<sup>th</sup> of September 2021 at approx. 07:41 from Whitton Dene area of Isleworth . A letter was sent

to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike between 07:30-07:40 was by OM3 which increased to 0.03ppm.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 07/09/2021 at the time of the inspection are below.

Monitor 1	0.003	ppm	13:25pm
Monitor 2	0.001	ppm	13:25pm
Monitor 3	0.000	ppm	13:25pm
Monitor 4	0.000	ppm	13:25pm
Monitor 5	0.004	ppm	13:25pm
Monitor 6	0.000	ppm	13:25pm
Monitor 7	0.005	ppm	13:25pm
Monitor 8	0.000	ppm	13:25pm
Monitor 9	0.004	ppm	13:25pm
Monitor 10	0.003	ppm	13:25pm
Monitor 11	0.003	ppm	13:25pm
Monitor 12	0.003	ppm	13:25pm
Monitor 13	0.004	ppm	13:25pm
Wind Speed	0.512	mph	13:25pm
Wind Direction	72.897		13:25pm

### **Odour Log (Thames)**

**Wednesday 1<sup>st</sup> September 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** 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 2<sup>nd</sup> September 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.** 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 3<sup>rd</sup> September 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.**

OM3 spiked to 0.025ppm at 22:32-22:47.

**Operational issues / causes observed.** No odour issues found.

**Actions taken.** Blank.

**Saturday 4<sup>th</sup> September 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.** Cool.

**Weather.** Clear Night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

Customer complaint received via LBH from Wayne Wright Grove / Harvester close area of Isleworth (west side of the works).

**Operational issues / causes observed.** Site inspection made no source of odour found or identified. OCU11 showed high odour spiking at 1024ppb being discharged from the stack. Chemical dosing not operational- no spikes on trends.

**Actions taken.** Blank.

**Sunday 5<sup>th</sup> September 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.** Warm.

**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 6<sup>th</sup> September 2021**

**DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny with patchy cloud.

**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.** Clear night .

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

Odour complaint from TW3 Heldmann Close at 21:30 – location to the west of the works OM3 spiked to 0.058ppm between 20:03-20:48

OM5 spiked to 0.018ppm at 20:18-20:48 & 0.021ppm at 22:03-22:19.

**Operational issues / causes observed.** Blank.



**Actions Taken.** Site inspection made no odour PAS area drains were odorous.  
OCU11 discharging high odour from stack still 13.59ppb.

**Tuesday 7<sup>th</sup> September 2021**

**DAY SHIFT**

**Temp.** Hot.

**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.** Warm.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:00.

**Observations / Customer Complaint.**

OM3 spiked to 0.024 18:32-18:48.

**Operational issues / causes observed.** No odour source found.

**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 <sup>3</sup>					
OMP limit	500					
01/09/2021	205	885	122	1212	1112	2324
03/09/2021	39	679	595	1313	608	1921
06/09/2021	39	740	885	1664	760	2424

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 15 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 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 low wet seal- No evidence of recent sludge spillages.

**Digester 7** was in service and had a low sludgy seal. A spill had 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 low thick sludgy seal. No evidence of previous spillages. Coping stones were tidy.

**Digester 9** was in service and had a low pasty sludgy seal (1/2ft from coping stones).

**Digester 10** was in service and had a low wet seal. No signs of any spillages.

**Digester 11** was in service and had a low thick sludgy seal. No signs of previous spillages and coping stones were clean.

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

**Digester 13** was in service and had a high thick pasty seal that was approx. under a 1ft below the coping stone.

**Digester 14** was in service and had a low thick sludgy seal that was approx. 2ft below the coping stone.

**Digester 15 was out of service.**

**Digester 16** was in service and had a wet seal that was bubbling off and erupting in some parts was erupting and spilling on the coping stones.

**Digester 17** was in service and had a low wet seal. Noticeably a lot of weeds and foliage growth around the digester.

**Digesters 18 and 19 were both out of service.**

**Digester 20** was in service and had a low wet seal . 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.

Advised Andy Carrick TW to report back the matter with overgrown vegetation around the 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 light green surfaces from algae that had settled. There was no evidence of fatty deposits on the surface. The hose on the arm was rotating and clearing off any remaining deposits.

### **Skips on the 7<sup>th</sup> of September 2021**

On the East side grit house there were 2 x 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

On the East side grit house there was 1 x red 20yds open bulk carrier that contained grit, no tarpaulin cover was in place. There was 1 x red 20yds closed bulk carrier that was empty and did not look in use. This was placed to the side against the wall.

There was one was 1 x 14yds skip on the west side of the works near the No5 Pumping station which contained general waste however no tarpaulin in place.

On the West side adjacent to the pumping station there was a 1 x 14yds skip filled with some inert material.

#### **East Side Screen House**

The doors at both ends of the screen house were closed at the time of the inspection. The roller shutters were also closed.  
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 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. 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**

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 at E Battery 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 – A lot better condition than previous visits. Progress has been made with this channel.

**Odour Control Unit (OCU) performance monitoring: 07/09/2021  
(Results supplied by TW are ppb and need converting to ppm)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
-------	---------------	--------------------	-----------

Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.13 0.11	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	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	0.39 0.31 0.28	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.113 0.100 0.080	0.5	Yes
Transfer PS inlet	98.00 76.06 81.09	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Thursday 2<sup>nd</sup> September 2021 (08:15am)

**Attendees:** Mr I Inman (London Borough of Hounslow), Mr J Staines and Mr N Bristow (Thames Water).

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was empty and clean.

Hopper 1 was approx. 30% full, hopper 2 was >25% full and hopper 3 was approx. 25% full.

**Tank 1B** was empty but had a large area of dry grit at the top end of the tank.

Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 50% full, all required draining down.

**Tank 2A** was returning and had less than 25% effluent remaining. Amajets 1 and 2 were non-operational, Amajet 3 was in operation.

**Tank 2B** was returning and had less than 25% effluent remaining. Amajets 1 and 3 were in operation, Amajet 2 was non-operational.

**Tank 3A** was empty but had dry grit across approx. 40% of the bottom end of the tanks surface.

Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 25% full, all required draining down.



**Tank 3B** had effluent covering 50% of the tanks surface.  
No Amajets 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.  
Hoppers 1, 2 and 3 were all completely full and contained stagnant odorous effluent, all required draining down.

**Tank 6B** was clean and empty.  
Hopper 1 was full, hopper 2 was approx. 25% full, hopper 3 was approx. 50% full. All contained stagnant odorous effluent and required draining down.

**Tank 7A** had effluent covering 50% of the tanks surface.  
No Amajets were in operation.  
Hoppers 1, 2 and 3 were therefore all full.

**Tank 7B** was empty but had dry grit and crust across the entire tanks surface.  
Hoppers 1, 2 and 3 (shallow hoppers) were all clogged with stagnant sludge and grit that was noticeably odorous.

**Tank 8A** contained inky green water across 15% of the tanks surface.  
Hoppers 1, 2 and 3 were therefore all full.

**Tank 8B** was empty and relatively clean except for areas of dry grit at the top end of the tank.  
Hoppers 1, 2 and 3 were all completely full and required draining down.

**Storm Feed Channel** - The level of effluent in both feed channels was low, bottomed out in some areas. It was noted that large amounts of grit and sludge was present in a number of areas along both the near and far side channels.  
Odour was noticeably present in places.

## **Complaints**

The Council received 1 complaints by telephone in the preceding week.

The Council received 7 complaints by either email or the on-line web system in the preceding week.

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

On Tuesday 24<sup>th</sup> August an on-line web complaints was received from a resident of Arnold Crescent, Isleworth at 15.39pm, logged under reference: A19989.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24<sup>th</sup> August a further on-line web complaint was received from a resident of Crofters Close, Isleworth at 15.53pm, logged under reference A19996.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24<sup>th</sup> August a further on-line web complaint was received from a resident of Kneller Gardens, Isleworth at 16.00pm, logged under reference A19992.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24<sup>th</sup> August a further on-line web complaint was received from a resident of Ellerdine Road, Hounslow at 18.16pm, logged under reference A20013.

The historic monitoring trends showed 1 peak of 0.051ppm on OM3 between 18:33-18:46pm.

On Friday 27<sup>th</sup> August an on-line web complaint was received from a resident of Gould Road, Twickenham at 11:35am, logged under reference A20146.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Friday 27<sup>th</sup> August an on-line web complaint was received from a resident of Albion Road, Twickenham at 16:15pm, logged under reference A20191.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Friday 27<sup>th</sup> August an on-line web complaint was received from a resident of May Road, Twickenham at 16:27pm, logged under reference A20329.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Tuesday 31<sup>st</sup> August a telephone complaint was received from a resident of Chase Gardens, Twickenham at 16:30pm, logged under reference A20338.

This call was incorrectly taken by the Councils telephone operator and should not have been formally logged, as the resident is not served by the London Borough of Hounslow.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

1 small peak of 0.010ppm occurred later on OM3 between 19:04-19:07pm.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 02/09/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	08:43am
Monitor 2	0.001	ppm	08:43am
Monitor 3	0.003	ppm	08:43am
Monitor 4	0.000	ppm	08:43am
Monitor 5	0.003	ppm	08:43am
Monitor 6	0.000	ppm	08:43am
Monitor 7	0.004	ppm	08:43am
Monitor 8	0.000	ppm	08:43am
Monitor 9	0.003	ppm	08:43am
Monitor 10	0.003	ppm	08:43am
Monitor 11	0.004	ppm	08:43am
Monitor 12	0.004	ppm	08:43am
Monitor 13	0.005	ppm	08:43am
Wind Speed	4.697	mph	08:43am
Wind Direction	305.031		08:43am

### Odour Log (Thames)

#### Wednesday 25<sup>th</sup> August 2021

##### **DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny w/patchy clouds.

**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.** No odour issues, none reported.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Thursday 26<sup>th</sup> August 2021**

**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.

**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, none reported.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Friday 27<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny w/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 28<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.  
**Weather.** Sunny w/patchy clouds.  
**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.** OM5 peak to 0.035ppm from 23:20-00:32, and OM5 0.021ppm from 03:03-03:32.  
**Operational issues / causes observed.** Blank.  
**Actions taken.** Blank.

**Sunday 29<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.  
**Weather.** Sunny w/patchy clouds.  
**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.  
**Operational issues / causes observed.** Blank.  
**Actions Taken.** Blank.

**Monday 30<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny w/patchy clouds.

**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.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Tuesday 31<sup>st</sup> August 2021**

**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.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Wednesday 1<sup>st</sup> September 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy w/patchy 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.** 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 <sup>3</sup>						
OMP limit	500					
01/09/2021	205	679 885*	122	1006	1112	2118 2324*
03/09/2021	39	679	595	1313	608	1921

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.

\* Incorrect figures entered on Thames Water paperwork.

### Imported Sludge

There have been an average of 15 imports of sludge per day in the preceding week.

### No.5 Pumping Station

The door and one window 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.

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 one of these skips.

TW were again requested to change these skips and ensure they are kept covered when being used.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance.

### **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 wet seal that was bubbling off minimal amounts of gas.

**Digester 7** was in service and had a partially dry seal that was bubbling off minimal amounts of gas. However, a recent spill had taken place that required cleaning.

**Digester 8** was in service and had a partially dry seal that was bubbling off minimal amounts of gas.

**Digester 9** had a wet seal that was very high (almost spilling) and bubbling off gas.

**Digesters 10, 11 and 12** were all in service and had very wet seals that were all bubbling off gas.

**Digesters 13 and 14** were both in service and had wet seals that were very high (almost spilling) and bubbling off gas.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal that was bubbling off gas.

There was evidence of a very recent spill that required cleaning.

**Digester 17** was in service and had a partially dry 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 that was bubbling off minimal amounts of gas.

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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 tanks 73 and 75 no other issues were evident.

### **Skips**

On the East side there two 14yds open skips.

One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.

Thames were again requested to remove these skips and ensure they are kept covered when in use.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin to cover it was lying on the floor.

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 first set of doors to the screen house were open at the time of the inspection, TW were unable to confirm why they were open. 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 90% 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. All had some surface scum that appeared to be fatty type algae.

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, rag and other debris.

**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 previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged with floating debris.

**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: 02/09/2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.02 0.02	Unknown	Unknown

	0.02		
Main pumping station outlet	0.01 0.01 0.01	0.2	Unknown
East OCU	0.03 0.03 0.03	0.05	Unknown
West inlet OCU	Not working	0.05	Unknown
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.02 0.03 0.03	0.6	Unknown
New West inlet (OCU 11)	0.03 0.02 0.02	0.5	Unknown
Pasteurisation (OCU 12)	0.03 0.03 0.03	0.5	Unknown
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.02 0.02 0.03	0.6	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 24 August 2021 (13:00)	
<b>Attendees:</b> Mr L Phillips (London Borough of Hounslow), Mr Dan Grady (Thames Water).	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> Was empty and clean, all hoppers had been drained to lowest point.</p> <p><b>Tank 1B</b> Was empty and clean, all hoppers had been drained to lowest point.</p> <p><b>Tank 2A</b> was returning during inspection. Tank had less than 25% effluent remaining all Amajets were operational.</p> <p><b>Tank 2B</b> was returning during inspection. Tank had less than 25% effluent remaining. Amajets 1 and 2 were in operation, Amajet 3 was non-operational.</p> <p><b>Tank 3A</b> was empty, however slight grit on the surface located at the bottom end of the tank (Hopper end). All hoppers had been drained to lowest point.</p> <p><b>Tank 3B</b> Was empty clean, however all hoppers full and needed draining.</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 empty clean, however all hoppers full and needed draining.

**Tank 6B** Was empty clean, however all hoppers full and needed draining.

**Tank 7A** Was empty clean, however all hoppers full and needed draining.

**Tank 7B** was empty clean, however slight dry grit build up at the end of the tank (Hopper end). All hoppers full and needed draining no noticeable odours.

**Tank 8A** had a low amount of water at the end of the tank (hopper end) as a result of this all hoppers were full.

**Tank 8B** Was empty clean, however all hoppers full and needed draining.

**Storm Feed Channel** - The level of effluent in both feed channels was low, bottomed out in some areas. It was noted that large amounts of grit and sludge was present in a number of areas along both the near and far side channels. No noticeable odours at this location during inspection.

### **Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.



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

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 24/08/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:06pm
Monitor 2	0.001	ppm	13:07pm
Monitor 3	0.000	ppm	13:07pm
Monitor 4	0.000	ppm	13:07pm
Monitor 5	0.004	ppm	13:07pm
Monitor 6	0.000	ppm	13:07pm
Monitor 7	0.003	ppm	13:07pm
Monitor 8	0.000	ppm	13:08pm
Monitor 9	0.005	ppm	13:08pm
Monitor 10	0.003	ppm	13:08pm
Monitor 11	0.000	ppm	13:08pm
Monitor 12	0.000	ppm	13:08pm
Monitor 13	0.000	ppm	13:08pm
Wind Speed	2.242	mph	
Wind Direction	46.708		

### **Odour Log (Thames)**

**Wednesday 17<sup>th</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ patchy clouds.

**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:** Patchy rain.

**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.

**Thursday 18<sup>th</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/Patchy clouds.

**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:** No odour issues found or reported.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Friday 19<sup>th</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/Patchy clouds.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** No odour issues none

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.

**Saturday 20<sup>th</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Cloudy W/ Sunny spells.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complain:** No odour issues none 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.

**Sunday 21<sup>st</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Rain W/ Sunny spells.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** No odour issues none

reported.

**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.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Monday 22<sup>nd</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Rain W/ Sunny spells.

**Odour Readings:** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint:** No odour issues none reported.

**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.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Tuesday 23<sup>rd</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**Weather:** Sunny W/ Patchy clouds.

**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:** No odour issues.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

**Wednesday 24<sup>th</sup> August 2021**

**DAY SHIFT:**

**Temp:** Warm.

**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:** Cool.

**Weather:** Clear night.

**Odour Readings:** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint:** No odour issues none reported.

**Operational issues / causes observed:** Blank.

**Actions Taken:** Blank.

### **Sludge Dip Records**

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
18/08/2021	0	1091	885	1976	912	2888
20/08/2021	0	1236	1030	2266	912	3178
23/08/2021	88	1678	824	2590	304	2894

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 15 imports of sludge per day in the preceding week.

### **No.5 Pumping Station**

The door and one window 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.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.  
Thames advised this unit is currently out of use due to ongoing maintenance.

### **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 had a weak sloppy seal. No evidence of spill.

**Digester 7** was in service had a weak sloppy seal. No evidence of spill.

**Digester 8** was in service had a weak sloppy seal. No evidence of spill.

**Digester 9** had a wet seal that was very high (almost spilling) and bubbling off gas.

**Digester 10** was in service had a weak sloppy seal bubbling off. However no evidence of spill.

**Digester 11** was in service had a weak sloppy seal bubbling off. However no evidence of spill.

**Digester 12** was in service had a weak sloppy seal bubbling off. However no evidence of spill.

**Digester 13** was in service had a weak sloppy seal bubbling off. However no evidence of spill.

**Digester 14** was in service and had weak sloppy seal level was very high (almost spilling) and bubbling gassing off .

**Digester 15** was out of service.

**Digester 16** was in service had a weak sloppy seal. No evidence of spill.

**Digester 17** was in service had a weak sloppy seal. No evidence of spill.

**Digester 18** was out of service.

**Digester 19** was out of service.

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

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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 tanks 73 and 75 no other issues were evident.

### **Skips**

On the East side there x2 14yds open skips.



One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin was hanging off skip on the ground.

1 x 40yds closed bulk carrier that was empty and 1 x 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin was hanging off the skip.

On the West side there was 1 x 20yds open bulk carrier that was empty.

### **East Side Screen House**

The first set of doors to the screen house 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 90% 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. All had some surface scum that appeared to be fatty type algae.

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, rag and other debris.

### **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 previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged with floating debris.

### **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: 18/08/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	0.06 0.05 0.06	Unknown	Unknown
Main pumping station outlet	0.01	0.2	Unknown

	0.01 0.01		
East OCU	0.04 0.04 0.04	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
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	Unknown
New West inlet (OCU 11)	0.02 0.02 0.02	0.5	Unknown
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Unknown
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 18 <sup>th</sup> August 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Dan Grady (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty and flushed clean – Hopper 1 approx. 25% full, Hoppers 2 &amp; 3 empty – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 40% of tank covered by grit and sludge – requires further flushing – Hopper 1 approx. 40% full, Hoppers 2 &amp; 3 approx. 10% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank in use – 1x Amajet working - requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank in use – 1x Amajet working - requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 50% full – requires draining/over-pumping.</p> <p><b>Tank 3B</b> – Tank empty – approximately 60% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires draining/over-pumping.</p>	

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty – approximately 25% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 75% full.

**Tank 6B** – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 20% full.

**Tank 7A** – Tank backfilling due to faulty return valve – approx. 70% of surface covered in effluent.

**Tank 7B** – Tank empty – 100% of tank covered by grit and sludge – requires further flushing – All Hoppers full.

**Tank 8A** – Tank empty – backfilling due to faulty return valve – approx. 15% of surface covered in effluent.

**Tank 8B** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – All Hoppers full.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

### Complaints

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

The Council directly received one complaint by email in the preceding week – 14/08/21 (13:19) from area of Weavers Close – historic trace data checked for OMU's in vicinity of Weavers Close: OMU 1/3/4/5 = .000 and OMU 2 = .001 ppm. TW Odour Log

details complaint received 17:30 “Checked around site and Trends – no spikes or abnormal sources of odour found.”

The Council received no complaints by email from MRAG.

*Thames Water controller advised that they had received no direct complaints in the preceding week.*

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	000	ppm	13:36
Monitor 2	001	ppm	13:36
Monitor 3	000	ppm	13:36
Monitor 4	000	ppm	13:36
Monitor 5	000	ppm	13:36
Monitor 6	000	ppm	13:36
Monitor 7	000	ppm	13:36
Monitor 8	000	ppm	13:36
Monitor 9	000	ppm	13:36
Monitor 10	000	ppm	13:36
Monitor 11	000	ppm	13:36
Monitor 12	000	ppm	13:36
Monitor 13	000	ppm	13:36
Wind Speed	10.9	mph	13:36
Wind Direction	254°		13:36

### **Odour Log (Thames):**

#### **Wednesday 11<sup>th</sup> August 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 12<sup>th</sup> August 2021:**

**AM** – Cool – Cloudy.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 13<sup>th</sup> August 2021:**

**AM** – Cool – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odours issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Saturday 14<sup>th</sup> August 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "Customer complaint received via WOCC from Mr Taylor."

**Operational Issues/Causes:** No data.

**Actions:** "Checked around site and Trends – No spikes or abnormal sources of odour found."

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Sunday 15<sup>th</sup> August 2021:**

**AM** – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 16<sup>th</sup> August 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "Storm Tanks have several Amajets faulty."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 17<sup>th</sup> August 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.



**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Patchy Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

### Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
11/08/21	0	1279	1030 (Data missing from copy supplie d).	2309	1240	3549
13/08/21	0	1424	885 (Data missing from copy supplie d).	2309	912	3221
16/08/21	0	1279	1030	2309	1088	3397

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

### Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae –

requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** – Out of use.

**Digester 6** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

**Digester 7** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously – Bell height high requiring draw down of Biogas.

**Digester 9** - In use – seal level approx. 3ft below coping stones – good seal.

**Digester 10** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 3ft below coping stones – good seal.

**Digester 12** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

**Digester 14** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level at level of coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

All doors closed at the time of inspection.

### **Imported Sludge**

Average of fifteen imports daily for preceding seven days.

### **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – Tank 75 = 75% of surface covered in “duck weed”.

### **Skips**

1x open container grit skip (50 % full) uncovered, 1x 8 yard general waste skip (partially covered), 1x 8 yard General Waste skip (uncovered), 2x 6 yard covered rag skips at rear of Pasteurisation Plant (covered), 1x enclosed container skip (empty) in Service Road at rear of Sludge Screen House. 1x enclosed container skip (empty) & 1x open container skip in Service Road alongside PST's 9-12.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

**Pasteurisation Plant**

Ten streams running.

**West side primary settlement tanks (PST)**

Rectangular PSTs – no issues.

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**New Works (West Side) Battery E**

Feed Channel for Aeration Lanes – contractor on site jetting lanes at time of inspection. Tank performance progressively improving.

**Odour Control Unit (OCU) performance monitoring – 11/08/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.14 0.14 0.14	Unknown	Unknown

Main pumping station outlet	0.02 0.02 0.02	0.2	Yes
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	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.01 0.01 0.01	0.6	Yes
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	0.04 0.04 0.04	0.5	Yes
New West inlet (OCU11)	0.05 0.04 0.05	0.5	Yes
Pasteurisation Plant (OCU12)	0.05 0.05 0.05	0.5	Yes
GBT Plant OCU Outlet	No data	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 10<sup>th</sup> August 2021 (13:30pm)

**Attendees:** Mr Z Kadri (London Borough of Hounslow), Ms Catherine (Thames Water) & Roxanne Denny (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 1B** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 2A** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 2B** was approx. 60% full and filling.  
No Amajets were in operation. No unpleasant odours witnessed.

**Tank 3A** was approx. 60% full and filling.  
Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**Tank 3B** was approx. 60% full and filling.  
Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**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. 60% full and filling. Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**Tank 6B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 7A** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 7B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 8A** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 8B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**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 8 complaints via the on-line web system and 1 complaint via email in the preceding week.

2 of the complaints received were from outside of the London Borough of Hounslow.

### **Ref: A18962**

Online complaint received on the 4<sup>th</sup> of August 2021 at 10:56 from Silverhall Street, Isleworth. The trends on SKADA did not demonstrate



any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A18968**

Online complaint received on the 4<sup>th</sup> of August 2021 at 11:36 from TW1 1HS which is located outside of the London Borough of Hounslow – No further action taken.

**Ref: A19001**

Online complaint received on the 4<sup>th</sup> of August 2021 at 17:38 from Lion Court", Lion Wharf Road area of Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19002**

Online complaint received on the 4<sup>th</sup> of August 2021 at 17:46 from Swan Street, Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19004**

Online complaint received on the 4<sup>th</sup> of August 2021 at 18:32 from Swan Street, Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19006**

Online complaint received on the 4<sup>th</sup> of August 2021 at 19:14 from Lion Court", Lion Wharf Road. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19008**

Online complaint received on the 4<sup>th</sup> of August 2021 at 19:54 from Lion Court", Lion Wharf Road. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19015**

Online complaint received on the 5<sup>th</sup> of August 2021 at 08:17 from TW1 1ET a location outside of London Borough of Hounslow. No further action taken.

**Ref: A19052**

Email complaint received on the 5<sup>th</sup> of August 2021 at 11:06 from the Weavers Close area of Isleworth.

In response to odour complaints received in the evening of the 4<sup>th</sup> of August from residents in 'Lion Wharf Road', 'Swan Road' and 'Weavers Close' Isleworth (Flare records A19001, A19002, A19004, A19006, A19008) a visit was made to the vicinity of Mogden sewage works. A subjective assessment was carried out between 23:10-23:25pm in Lion Wharf Road, Swan Street and Worton Road (by the industrial estate and Royal Oak pub) no odour noticeable other than faint whiffs in Worton Road were observed.

Unable to undertake H2S assessment or ascertain qualitative data due to 'Jerome H2S analyser' away being re-calibrated.

Letters were sent out to all the complainants with an update of action taken by the on call duty officer.

On the 10<sup>th</sup> of August 2021 Thames Water Data (SKADA trends) was inspected and times and dates of the complaints above were checked. There was no indication of spikes or activity that suggested an increase of odour. The odour logs supplied by Thames Water did not mention any reasons for a possible increase in odours. Odour Monitor 3 was the only monitor showing increase to a maximum spike of 0.005ppm. The remaining Odour monitors were below 0.05ppm or 0.00ppm.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 10/08/2021 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	0.000	ppm	14:12pm
Monitor 9	0.000	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	0.208	mph	14:12pm
Wind Direction	226.182		14:12pm

### Odour Log (Thames)

#### Wednesday 4<sup>th</sup> August 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.

**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 5<sup>th</sup> August 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.** Rain with sunny spells.

**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 6<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** Cool.

**Weather.** Patchy rain.  
**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 7<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.  
**Weather.** Rain.  
**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.** Overcast Night.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues/spikes.  
**Operational issues / causes observed.** Blank.  
**Actions taken.** Blank.

**Sunday 8<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.  
**Weather.** Rain.  
**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.** Patchy 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 9<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool

**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.** Cool

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Tuesday 10<sup>th</sup> August 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:** 05:00.

**Observations / Customer Complaint.** No odour issues.

**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 <sup>3</sup>					
OMP limit	500					
04/08/2021	0	1091	1030	2122	760	2881
06/08/2021	0	946	671	1617	1264	2881
09/08/2021	0	1236	1030	2266	912	3178

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 15 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 was open at the time of the inspection due to ongoing maintenance by onsite contractors. There was HERAS fencing in the yard to the front of House where contractors were seen.

### **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 in some places. The seal was low – No evidence of recent sludge spillages.

**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. 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 low thick sludgy seal. No evidence of previous spillages. Coping stones were tidy.

**Digester 9** was in service and had a high thick sludgy seal (1/2ft from coping stones).

**Digester 10** was in service and had a low thick in some places gritty seal.

**Digester 11** was in service and had a low thick sludgy seal. No signs of previous spillages and coping stones were clean.

**Digester 12** was in service and had a low 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. Noticeably a lot of weeds and foliage growth around the digester.

**Digesters 18 and 19** were both out of service.

**Digester 20** was in service and had a low thick sludgy seal . 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 surfaces 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.

### **Skips**

On the East side there were two 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

There was one 20yds open bulk carrier that contained grit, no tarpaulin cover was in place.

There was one was one 14yds skip adjacent to the Sludge Import area (West of the works) that contained inert material. There was a tarpaulin cover over the skip. There was some amount of water in the skip.

On the West side adjacent to the pumping station there was a 14yds skip filled with some inert material but mainly rain water. There was no cover for this skip.

#### **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 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.

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**

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 at E Battery 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 – A lot better condition than previous visits. Progress has been made with this channel.

### **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: 04/08/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.28 0.25 0.24	0.2	Unknown
East OCU	0.26 0.23 0.21	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	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.06 0.03 0.03	0.5	Yes
Transfer PS inlet	0.103 0.097 0.095	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 3 <sup>rd</sup> August 2021 (14:00pm)	
<b>Attendees:</b> Mr I Inman and Mrs V Wallas (London Borough of Hounslow), Mr D Grady and Ms D Gillespie (Thames Water).	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hopper 1 was approx. 25% full, hopper 2 was &gt;10% full and hopper 3 was approx. 15% full.</p> <p><b>Tank 1B</b> was empty but had green algae at the top end of the tank. Hopper 1 and 3 were both approx. 30% full, hopper 2 was approx. 10% full, all required draining down.</p> <p><b>Tank 2A</b> was empty but had wet grit across approx. 50% of the tanks surface at the hopper end and was noticeably odorous. Hopper 1 was approx. 35% full, hopper 2 was approx. 25% full and hopper 3 was approx. 15% full, all required draining down.</p> <p><b>Tank 2B</b> was empty and had a large area of dry grit along the left hand side of the tank. Hoppers 1 and 3 were both approx. 45% full, hopper 2 was approx. 20% full, all required draining down.</p> <p><b>Tank 3A</b> was empty but had wet sludge along half of the right hand side of the tank.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Hopper 1 was 50% full, hoppers 2 and 3 were both approx. 25% full, all required draining down.

**Tank 3B** was empty but had dry grit in the middle section of the tank.  
Hoppers 1, 2 and 3 were all completely full and required draining down.

**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 approx. 90% full and hoppers 2 and 3 were both approx. 80% full, all required draining down.

**Tank 6B** was clean and empty  
Hopper 1 was full, hopper 2 was approx. 60% full, hopper 3 was approx. 80% full, all required draining down.

**Tank 7A** was in use and being returned (being approx. 10% full).  
Amajets 1 and 2 were in operation.

**Tank 7B** had recently been returned and was dirty and odorous with sludge and grit across the tanks surface.  
Hoppers 1, 2 and 3 (shallow hoppers) were all clogged with sludge and grit.

**Tank 8A** contained inky green water across 50% of the tanks surface.  
Hoppers 1, 2 and 3 were therefore all full.

**Tank 8B** contained inky green water across 50% of the tanks surface.  
Hoppers 1, 2 and 3 were therefore all full.

**Storm Feed Channel** - The level of effluent in both feed channels was low, bottomed out in some areas. It was noted that large amounts of grit was present in a number of areas of both the near and far side channel.

## **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.

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

On Tuesday 27<sup>th</sup> July an on-line web complaints was received from a resident of Pulteney Close, Isleworth at 0.33am, logged under reference: A18582.

The historic monitoring trends around the time of the complaint was as follows:

On 26/07/2021 OM5 spiked from 22:18pm-23:33pm to levels of between 0.009ppm and 0.007ppm. A short spike occurred at 00:47am on 27/07/2021 of 0.010ppm and one further short spike occurred at 02.03am of 0.015ppm.

On Tuesday 27<sup>th</sup> July an on-line web complaint was received from a resident of Wotton House, St Johns Road, Isleworth at 18:39pm, logged under reference A19632.

The historic monitoring trends around the time of the complaints were as follows:

Only OM5 had several low spikes of 0.004ppm-0.006ppm between 16:17pm-17:47pm.

On Tuesday 3<sup>rd</sup> August an on-line web complaints was received from a resident of Whitton Dene, Isleworth at 9:43am, logged under reference A18906.

The historic monitoring trends around the time of the complaints were as follows:

Only OM10 showed two low level spikes of 0.004ppm between 09:20am-09:33am and 0.005ppm between 00:08am-11:20am.



### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 03/08/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	14:53pm
Monitor 2	0.001	ppm	14:53pm
Monitor 3	0.000	ppm	14:53pm
Monitor 4	0.000	ppm	14:53pm
Monitor 5	0.000	ppm	14:53pm
Monitor 6	0.000	ppm	14:53pm
Monitor 7	0.000	ppm	14:53pm
Monitor 8	0.000	ppm	14:53pm
Monitor 9	0.000	ppm	14:53pm
Monitor 10	0.003	ppm	14:53pm
Monitor 11	0.000	ppm	14:53pm
Monitor 12	0.000	ppm	14:53pm
Monitor 13	0.000	ppm	14:53pm
Wind Speed	0.365	mph	14:53pm
Wind Direction	79.751		14:53pm

### Odour Log (Thames)

#### Wednesday 28<sup>th</sup> July 2021

##### **DAY SHIFT**

**Temp.** Warm.

**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.** Rain.

**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 29<sup>th</sup> July 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** 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.

**Friday 30<sup>th</sup> July 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** Blank.

**Actions taken.** 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.  
**Actions taken.** Blank.

**Saturday 31<sup>st</sup> July 2021**

**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.** Patchy rain.

**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 1<sup>st</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain 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.** 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.

**Monday 2<sup>nd</sup> August 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.** 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.

**Tuesday 3<sup>rd</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny w/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.

<b>Actions Taken.</b> Blank.	
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### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
30/07/2021	0	946	1030	1976	760	2736
02/08/2021	0	946	885	1831	760	2591

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 door and one window 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 one of these skips.

As LBH note, this has not been required in the last week.

TW were again requested to change these skips and ensure they are kept covered when being used.

### **Raw Sludge Screening House**

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance.

### **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.

**Digesters 6, 7 and 8** were all in service and had a very wet seals that were all bubbling off gas.

**Digester 9** was in service and had a reasonably dry seal that was crusty in places.

**Digester 10** was in service and had a very wet seal that was bubbling off gas.

**Digester 11** was in service and had a fairly dry seal that was bubbling off minimal amounts of gas.

**Digesters 12, 13 and 14** were all in service and had very wet seals (virtually no seal) and all were bubbling off gas.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal that was bubbling off gas. There was evidence of a recent spill that required cleaning.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 17** was in service and had a partially dry 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 being applied manually to all operational digesters due to the automatic dosing equipment not operating.

## **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 tanks 73 and 75 no other issues were evident.

### **Skips**

On the East side there two 14yds open skips.

One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.

Thames were again requested to remove these skips and ensure they are kept covered when in use.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was being loaded with grit at the time of the inspection.

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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.



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 were open at the time of the inspection, TW were unable to confirm why they were open. 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 90% 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. All had some surface scum that appeared to be fatty type algae.

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, rag and other 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, but the tanks surface area appeared improved and movement was clearly visible.

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

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged with floating debris.

### **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:**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	Not provided	0.2	Unknown
East OCU	Not provided	0.05	Unknown
West inlet OCU	Not provided	0.05	Unknown
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not	0.8	Unknown

	provided		
Thickening plant inlet	Not provided	Unknown	Unknown
Thickening plant outlet	Not provided	0.6	Unknown
New West inlet (OCU 11)	Not provided	0.5	Unknown
Pasteurisation (OCU 12)	Not provided	0.5	Unknown
Transfer PS inlet	Not provided	Unknown	Unknown
Transfer PS outlet	Not provided	0.6	Unknown
<p>OCU data was not provided on submission of the weekly inspection paperwork and despite several requests Thames had still not provided the data by 13/08/2021.</p>			



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 27 <sup>th</sup> July 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Dan Grady (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty and flushed clean – Hopper 1 approx. 90% full, Hoppers 2 &amp; 3 80% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty and flushed clean – Hopper 1 approx. 90% full, Hoppers 2 &amp; 3 80% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 25% of tank covered by sludge and grit – requires further flushing – All Hoppers approx. 95% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 80% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 3B</b> – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – All Hoppers full – requires</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

draining/over-pumping.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty – approximately 10% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 full, Hopper 2 approx. 75% full.

**Tank 6B** – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – Hoppers 1 & 3 approx. 95% full, Hopper 2 approx. 75% full.

**Tank 7A** – Tank in process of being returned – All Amajets in use.

**Tank 7B** – Tank in process of being returned – All Amajets in use.

**Tank 8A** – Tank empty – backfilling due to faulty return valve.

**Tank 8B** – Tank empty – approximately 40% of tank covered by grit and sludge – requires further flushing – All Hoppers full.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

### **Complaints**

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

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

**The Council received no complaints by email from MRAG.**

**Thames Water controller advised that they had received no direct**

**complaints in the preceding week.**

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	000	ppm	13:33
Monitor 2	.001	ppm	13:33
Monitor 3	000	ppm	13:33
Monitor 4	000	ppm	13:33
Monitor 5	000	ppm	13:33
Monitor 6	000	ppm	13:33
Monitor 7	000	ppm	13:33
Monitor 8	000	ppm	13:33
Monitor 9	000	ppm	13:33
Monitor 10	.003	ppm	13:33
Monitor 11	000	ppm	13:33
Monitor 12	000	ppm	13:33
Monitor 13	000	ppm	13:33
Wind Speed	0.2	mph	13:33
Wind Direction	169°		13:33

**Odour Log (Thames):**

**Wednesday 21<sup>st</sup> July 2021:**

**AM** – Very Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Hot – Clear Night.

All OMU's in use.

**Observations/Complaints:** "Sludge spill imported sludge area."

**Operational Issues/Causes:** No data.

**Actions:** "Spill cleaned."

**Thursday 22<sup>nd</sup> July 2021:**

**AM** – Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 23<sup>rd</sup> July 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odours issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Saturday 24<sup>th</sup> July 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Sunday 25<sup>th</sup> July 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 26<sup>th</sup> July 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 27<sup>th</sup> July 2021:**

**AM** – Warm – Rain with Sunny spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.



## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
<b>OMP limit</b>	<b>500</b>					
23/07/21	0	1279 (TW figure 1340)	885	2164	912	3076 (TW figure 3137)
26/07/21	0	1236	885	2121	912	3033

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** - Out of use (permanent) - noticeable quantity of water accumulated to the brim of these tanks which is thick with algae - requires draining. Long term project currently initiated to bring these units back into service - will require significant investment.

**Digester 5** - Out of use.

**Digester 6** - In use - seal level approx. 4ft below coping stones - seal weak and bubbling.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 7** - In use - seal level approx. 4ft below coping stones - seal weak and bubbling vigorously - ongoing spill requiring anti-foam and clean-up - Bell height high requiring draw down of Biogas.

**Digester 8** - In use - seal level approx. 5ft below coping stones - seal weak and bubbling.

**Digester 9** - In use - seal level approx. 4ft below coping stones - good seal.

**Digester 10** - In use - seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 11** - In use - seal level approx. 2ft below coping stones - good seal.

**Digester 12** - In use - seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 13** - In use - seal level approx. 18" below coping stones - seal weak and bubbling vigorously.

**Digester 14** - In use - seal level approx. 18" below coping stones - seal weak and bubbling vigorously.

**Digester 15** - Out of use.

**Digester 16** - In use - seal level approx. 3ft below coping stones - seal weak and bubbling - ongoing spill requiring anti-foam and clean-up - Bell height high requiring draw down of Biogas.

**Digester 17** - In use - seal level approx. 4ft below coping stones - good seal.

**Digester 18** - Out of use.

**Digester 19** - Being brought back into service following maintenance - currently being filled.

**Digester 20** - In use - seal level approx. 4ft below coping stones - seal

weak and bubbling.

**GENERAL**

**Sludge Screening House**

All doors open at the time of inspection.

**Imported Sludge**

Average of eight imports daily for preceding seven days.

**Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – Tank 75 = 100 of surface covered in “duck weed”.

**Skips**

1x open container grit/rag skip (50 % full) partially covered, 1x 8 yard general waste skip (covered), 1x 8 yard grit rag skip (empty), 1x enclosed container skip (empty) in Service Road at rear of Sludge Screen House. Evidence of sludge/grit leakage from skip into surface water gutter – required clean-up.

1x skip 50% full of water in Service Road by Pasteurisation Plant.

1x open container skip (empty) in Service Road alongside PST's 9-12.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

Skips containing rag and grit are routinely covered.  
General waste and empty skips which are not odorous may be uncovered.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

**Pasteurisation Plant**

Nine streams running.

**West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**New Works (West Side) Battery E**

Feed Channel for Aeration Lanes 10% obstructed – requires jetting. Large thick crust evident previously has largely broken up and air noticeably breaking surface.

**Odour Control Unit (OCU) performance monitoring – 27/07/21**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.317 0.134 0.130	0.2	No
East OCU	0.051 0.047 0.045	0.05	No

West inlet OCU	0.000 0.000 0.000	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.098 0.086 0.085	0.6	Yes
Transfer PS inlet	0.118 0.113 0.109	Unknown	Unknown
Transfer PS outlet	0.000 0.000 0.000	0.5	Yes
New West inlet (OCU11)	0.030 0.000 0.060	0.5	Yes
Pasteurisation Plant (OCU12)	0.011 0.018 0.014	0.5	Yes
GBT Plant OCU Outlet	0.000 0.000 0.000	Unknown	Unknown

“East OCU recirculation pumps tripping – unable to start scrubber 1”



## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 13<sup>th</sup> 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.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning

**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 7<sup>th</sup> 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 8<sup>th</sup> 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 9<sup>th</sup> 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 (H<sub>2</sub>S) 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 7<sup>th</sup> 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 8<sup>th</sup> 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 9<sup>th</sup> 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 10<sup>th</sup> 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 11<sup>th</sup> 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 12<sup>th</sup> 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 13<sup>th</sup> 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 m <sup>3</sup>					
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.

As LBH note, this has not been required in the last week.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**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.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.



### **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	



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 6 <sup>th</sup> July 2021 (13:00pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow), Mr D Grady (Thames Water) and Ms L Crispie (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was approx. 75% full and filling. No Amajets were in operation.</p> <p><b>Tank 1B</b> was approx. 75% full and filling. No Amajets were in operation.</p> <p><b>Tank 2A</b> was approx. 75% full and filling. No Amajets were in operation.</p> <p><b>Tank 2B</b> was approx. 75% full and filling. No Amajets were in operation.</p> <p><b>Tank 3A</b> was approx. 75% full and filling. Amajets 1, 2 and 3 were all in operation.</p> <p><b>Tank 3B</b> was approx. 75% full and filling. Amajets 1, 2 and 3 were all in operation.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

**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 60%.

### **Complaints**

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 06/07/2021 at the time of the inspection are below.

Monitor 1	0.006	ppm	13:28pm
Monitor 2	0.001	ppm	13:28pm
Monitor 3	0.000	ppm	13:28pm
Monitor 4	0.000	ppm	13:28pm
Monitor 5	0.000	ppm	13:28pm
Monitor 6	0.000	ppm	13:28pm
Monitor 7	0.000	ppm	13:28pm
Monitor 8	0.000	ppm	13:28pm
Monitor 9	0.000	ppm	13:28pm
Monitor 10	0.000	ppm	13:28pm
Monitor 11	0.000	ppm	13:28pm
Monitor 12	0.000	ppm	13:28pm
Monitor 13	0.000	ppm	13:28pm
Wind Speed	9.029	mph	13:28pm
Wind Direction	268.836		13:28pm

### Odour Log (Thames)

**Wednesday 30<sup>th</sup> June 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.

**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 1<sup>st</sup> 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.** Sludge spill from PAS stream  
11 PAS pump.

Strong odour detected all around PAS area.

No spikes on trends

**Operational issues / causes observed.** Blank.

**Actions Taken.** Operators on call washing area down.

**Friday 2<sup>nd</sup> 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.** Patchy rain.

**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 3<sup>rd</sup> 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 found or reported.

**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.

**Operational issues / causes observed.** Blank

**Actions taken.** Blank.

**Sunday 4<sup>th</sup> 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.** Cool.

**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.

### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
30/06/2021	0	1340	1030	2370	1392	3762
02/07/2021	0	824 *1405 ?	740	1564	1064	2628 *3209
05/07/2021	0	824	740	1564	760	2324

\* Incorrect totals entered on TW paperwork ?

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.

As LBH note, this has not been required in the last week.

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 very wet 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 30" below the top of the coping stone). A spill had also taken place on the far side of the digester that required cleaning up.

**Digesters 8 and 9** were both in service and had a 'part' dry seals that were bubbling off gas, it was noted that the seal levels were low on both digesters (at least 30" below the top of the coping stone).

**Digester 10** was in service and had a very wet seal that was bubbling off gas.

**Digesters 11 and 12** were both in service and had a very wet seals that was bubbling off gas, it was noted that the seal levels were low on

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

both digesters (at least 30" below the top of the coping stone).

**Digesters 13 and 14** were both in service and had no seals. It was noted that the pas was an inky black colour and giving off a strong offensive 'septic' odour.

**Digester 15** was out of service.

**Digester 16** was in service and the bell height was high. The digester was spitting and bubbling and had spilt on one side.

**Digester 17** was in service and had a partially dry 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. It was noted that the seal level was low (at least 30" below the top of 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).

All tanks were in operation at the time of the inspection. Other than surface algae on tank 74 and 78 that was covering less approx. 25% of the tanks surface, no other issues were evident.

### **Skips**

On the East side there two 14yds open skips.  
One contained a small amount of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.  
Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that contained grit, soil and hardcore (approx. 30%), no tarpaulin cover was in place.

In the Sludge Import area there were two 8yds open skips. One 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.

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 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. It was noted that the area in the middle of the tank contained a large quantity of solid fat, algae, rag and other debris.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 7 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 the previously.

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 free-flowing between lanes 23-25. However, lane 22 was partially clogged with floating debris.

### **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: 30/06/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.06 0.04 0.03	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	0.020 0.016 0.011	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.01 0.01 0.04	0.5	Yes
Transfer PS inlet	0.100 0.093 0.069	Unknown	Unknown
Transfer PS outlet	0.00 0.00	0.6	Yes

	0.00			
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**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** Tuesday 15<sup>th</sup> June 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Tom Costin (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A** - Tank was clean and empty – Hopper 1 was over 25% full however Hopper 2 and 3 had been drained down and were empty.

**Tank 1B** - Tank was clear of effluent however had a slight crusty surface toward the river end of the tank. All three hoppers were below 25% level but still needed further draining down.

**Tank 2A** - was clear and had a clean surface. Hoppers 1, 2 and 3 were empty.

**Tank 2B** – Tank was clean however had some dry gritty patches. Hoppers 1, 2 and 3 were over 25% effluent and needed draining down.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Tank 3A** - The tank was clean and tidy. However hoppers 1, 2 and 3 needed draining down. All three hoppers were above 50% full of effluent.

**Tank 3B** - This tank was all clear of effluent however had a thick gritty patches to the left hand side of the tank. Hoppers 1, 2 and 3 were full to the top of effluent and needed draining down.

**Storm Feed Channel** - The level of effluent in the feed channels was less than 5% in depth along its entire length and even bottomed out in some places. The colour of effluent was murky and black in colour with some green deposits. There was some fatty deposits observed.

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

**Tank 6A** – Tank was clean and clear of effluent. However hoppers 1, 2 and 3 were over 50 % full of effluent - Hoppers needed draining down.

**Tank 6B** – Tank was clean and tidy free of grit. However hoppers 1, 2 and 3 were over 50 % full of effluent and needed draining down.

**Tank 7A** – Tank was clear however the hoppers were overflowing with black effluent, there was a slight green mossy surface.

**Tank 7B** – Tank had overflowing hoppers with a green mossy surface covering the black coloured effluent. The rest of the tank was clean and tidy and free of grit.

**Tank 8A** – Tank was clean and tidy. However all hoppers were full to the top of effluent and needed draining down.

**Tank 8B** – The tank was clean however all hoppers were full of effluent and needed draining down.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and was a sludgy sandy colour – Some fatty deposits observed floating on surface.

There were no observation of malodour at this locality of the works.

### **Complaints**

The Council directly received **3** complaints by telephone in the preceding week.

On 8<sup>th</sup> June a telephone call was received from a resident of Weavers Close, Isleworth regarding odour from the works at 13:40pm. The call was taken by a member of the Councils call centre but was not forwarded to the duty day officer. This matter is still under investigation. This complaint was logged under ref: A16259.

Unfortunately the historic monitor trends were not functioning correctly at the time of the inspection and were not showing OM data for some of the previous week.

On the 8<sup>th</sup> June a further telephone call was received from the same resident of Weavers Close, Isleworth at approx. 22:43pm. The out of hours duty officer telephoned the complainant at approximately 23.07hrs in response to the complaint. Following the conversation the duty officer visited the area and undertook odour monitoring for Hydrogen Sulphide (H<sub>2</sub>S) and made a subjective assessment of the odour. The results of this were that the average level of H<sub>2</sub>S was 0.013ppb for the first ten readings and 0.008ppb for the second ten readings. The subjective assessment confirmed that the level of odour was not excessive, although was periodically noticeable on the breeze. The Officer made contact with TW operations staff and updated the Mogden information line. This complaint was logged under Ref: A16427.

Unfortunately the historic monitor trends were not functioning correctly at the time of the inspection and were not showing OM data for some of the previous week.

On 9<sup>th</sup> June a telephone call was received from a resident of Weavers Close, Isleworth regarding odour from the works at 13:56pm. The call was taken by a member of the Councils call centre but was not forwarded to the duty day officer. This matter is still under investigation and the complainant is due for a response. This complaint was logged under ref: A16324.

Unfortunately the historic monitor trends were not functioning correctly at the time of the inspection and were not showing OM data for some of the previous week.

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

The Council received no complaints by email from MRAG.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 15/06/2021 at the time of the inspection are below.

Monitor 1	0.006	ppm	13:31p m
Monitor 2	0.000	ppm	13:31p m
Monitor 3	0.000	ppm	13:31p m
Monitor 4	0.004	ppm	13:31p m
Monitor 5	0.000	ppm	13:31p m
Monitor 6	0.000	ppm	13:31p m
Monitor 7	0.000	ppm	13:31p m
Monitor 8	0.003	ppm	13:31p m
Monitor 9	0.000	ppm	13:31p m
Monitor 10	0.000	ppm	13:31p m
Monitor 11	0.000	ppm	13:31p m
Monitor 12	0.000	ppm	13:31p m
Monitor 13	0.000	ppm	13:31p m
Wind Speed	2.035	mph	13:31p m
Wind Direction	233.900		13:31p m

**Odour Log (Thames)**

**Wednesday 9<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny.

**Odour Readings** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues.

**Operational issues / causes observed.**

Blank.

**NIGHT SHIFT**

**Temp.** Warm.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.**

Blank.

**Thursday 10<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Very Hot.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM5 0.020ppm 15:32-15:34.

**Operational issues / causes observed.**

15:55 complaint from north of site – East skip area checked and hosed down.

**NIGHT SHIFT**

**Temp.** Warm.

**Weather.** Clear night.  
**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues reported.

**Operational issues / causes observed.** Blank.

### Friday 11<sup>th</sup> June 2021

#### **DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

#### **NIGHT SHIFT**

**Temp.** Warm.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

### Saturday 12<sup>th</sup> June 2021

#### **DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny with Patchy clouds.

**Odour Readings.** All Odour monitors are 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 Odour monitors are in operation except.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.029ppm at 00:18-00:33 – No odour issues found.

**Operational issues / causes observed.** Blank.

### Sunday 13<sup>th</sup> June 2021

#### **DAY SHIFT**

**Temp.** Very Hot.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

#### **NIGHT SHIFT**

**Temp.** Warm.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM2-0.021ppm – 20:48-21:04, 0.035ppm – 23:47-00:47,  
0.021ppm – 01:00-01:48.

**Operational issues / causes observed.**

Nothing out of the ordinary to report- around East inlet- Skips area was hosed down.

### Monday 14<sup>th</sup> June 2021

#### **DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**



OM2 spiked at 08:03-08:17 max 0.016ppm.

**Operational issues / causes observed. Blank.**

East inlet hosed down.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear nights.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues.

**Operational issues / causes observed.**

Blank.

**Tuesday 15<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

Customer complaint received North end of the site - asked to check OM2 which was reading 0.00ppm = No issues found.

**Operational issues / causes observed.**

Blank.

**NIGHT SHIFT**

**Temp.** Warm.

**Weather.** Clear Night.

**Odour Readings.** All Odour monitors are in operation.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM2-0.016ppm – 21:18 = 21:32, 0.021ppm – 23:17-23:33,  
0.019ppm – 00:02- 00:17.

**Operational issues / causes observed.**

East inlet area hosed down.

### Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
09/06/2021	0	1297	1073	2370	1392	3762
11/06/2021	0	1236	1030	2266	1392	3658
14/06/2021	0	1297	1030	2327	1392	3719

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 0 import of sludge per day.

### No.5 Pumping Station

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

### Sludge Import Area

As LBH note, this has not been required in the last week.

The sludge import area was clean & tidy. No odours detected at time of inspection. TW 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 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 low thick seal approx. More than 1ft below coping stones. Good thick seal all around. The walkway around the digesters were clean and there were signs of previous spillage.

**Digester 7** was in service and had a low thick seal approx. 1ft below coping stones. Part of the digester was erupting – slight deposits on coping stone

**Digester 8** was in service and had a low thick sludgy seal approx. 1ft plus below the coping stones. Good thick seal all around which was bubbling in places.

**Digester 9** was in service and had a low sludgy seal. Gassing in places but no sign of previous spillage – coping stones were clean and tidy.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 10** had a low sludgy seal all round. No signs of previous spillage. The depth was over 1ft below the coping stone.

**Digester 11** had a low wet runny seal which was approx. 2ft below the coping stones. There was no evidence of a previous spillage.

**Digester 12** was in service and had a wet seal. The level of the seal was approx. 2ft below the coping stone.

**Digester 13** was in service and had a very thick sludgy seal that was approx. 2ft below the coping stone. There were no signs of previous spillages.

**Digester 14** was in service and had a thin wet seal approx. 2ft below coping stones. There were signs of previous spillages.

**Digester 15 was out of service.**

**Digester 16** was in service and had a good thick seal. There were signs of previous spillage. Level of sludge was high approx. 1ft below coping stone in some places higher.

**Digester 17** was in service and had a dry thick seal – The digester had been pelleted.

**Digesters 18 & 19 were both out of service.**

**Digester 20** was in service and had a low wet seal approx. 2ft below coping stones.

The walkways around the digesters were clean and tidy. There were no signs of previous spillages or crusty remains of historic spillages.

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). All tanks/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits. The water hoses/sprinklers were breaking up any remainder residue across the surface.

### **Skips**

1x large open bulk carrier (half full) with general waste – uncovered  
1x 8 yard grit/rag skip (full) - covered with blue tarpaulin

1x 8 yard general waste in Service yard grit house – uncovered (full).

No other skips observed on site.

### **East Side Screen House**

The middle set of blue screen house doors were open at the time of the inspection no contractors working at site at time of inspection. Advised TW these doors must remain closed.

### **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 road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it (No change from previous visit on 18<sup>th</sup> May 2021)

### **West side primary settlement tanks (PST)**

Rectangular PSTs are now covered and odour controlled. TW advised no concerns or issues. No noticeable odours at time of inspection.

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

Circular PST 12 has been drained down and is currently out of service.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 6 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 appeared to be free flowing with the internal dividing walls being visible again in some areas. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up again by lane 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.

**Odour Control Unit (OCU) performance monitoring: 15<sup>th</sup> June 2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00 Ave:0.00	Unknown	Unknown
East OCU	0.07 0.05 0.03 Ave:0.05	0.05	YES
West inlet OCU	0.00 0.00 0.00 Ave:0.00	0.05	Yes
Thickening plant outlet	0.019 0.015 0.011 Ave:0.015	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes

	Ave:0.00		
Pasteurisation (OCU 12)	0.02 0.01 0.04 Ave: 0.02	0.5	Yes
Transfer PS inlet	0.191 0.095 0.068 Ave:0.118	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00 Ave:0.00	0.6	Yes
GBT Plant OCU outlet	0.00 0.00 0.00 Ave:0.00	Unknown	Unknown





## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 8 <sup>th</sup> June 2021 (08:00am)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hopper 1 was approx. 25% full, hoppers 2 and 3 were both approx. 25%. All required draining down or over-pumping.</p> <p><b>Tank 1B</b> was empty and clean. Hoppers 1 and 3 were both approx. 30% full, hopper 2 was approx. 25% full. All required draining down or over-pumping</p> <p><b>Tank 2A</b> was empty and clean. Hoppers 1, 2 and 3 were all &gt;25% full.</p> <p><b>Tank 2B</b> was empty and clean. Hoppers 1 and 2 were both approx. &gt;25% full, hopper 3 was approx. 30% full. All required draining down or over-pumping.</p> <p><b>Tank 3A</b> was empty but had dry crusty grit along the right hand side of the tank. Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 25% full. All required draining down or over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** was empty and clean.

Hoppers 1, 2 and 3 were all completely full and required draining down or over-pumping.

**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, 2 and 3 were all approx 70% full. All required draining down or over-pumping.

**Tank 6B** was empty and clean.

Hopper 1 was full, hopper 2 was approx. 30% full, hopper 3 was approx. 50% full. All required draining down or over-pumping.

**Tank 7A** was clean but had water flowing into it from the hoppers.

Hoppers-1, 2 and 3 (shallow hoppers) were all full (and overflowing into the tank) and required attention.

**Tank 7B** was clean but had water flowing into it from the hoppers.

Hoppers-1, 2 and 3 (shallow hoppers) were all full (and overflowing into the tank) and required attention.

**Tank 8A** was clean but had water flowing into it from the hoppers.

Hoppers 1, 2 and 3 were all full and overflowing into the tank. All required draining down or over-pumping.

**Tank 8B** was empty but had dry grit at the top end of the tank.

Hoppers 1, 2 and 3 were all full and overflowing into the tank. 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 received no complaints by telephone in the preceding week.

The Council received 4 complaints by either email or the on-line web system in the preceding week.

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

On 1<sup>st</sup> June the Council received an on-line web complaint at 22:28pm from a resident of Dean Road, Hounslow (logged under ref: A15914).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

On 2<sup>nd</sup> June the Council received an on-line web complaint at 21:50pm from a resident of Borough Road, Isleworth (logged under ref: A15959).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data. However, due to the location of this complainant and distance to the site, it is thought that this complaint has been logged in error and stems from a localised odour problem.

On 7<sup>th</sup> June the Council received an on-line web complaint at 21:58pm from a resident of Tolson Road, Isleworth (logged under ref: A16223).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

On 7<sup>th</sup> June the Council received an on-line web complaint at 23:17pm from a resident of St Johns Road, Isleworth (logged under ref: A16224).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 08/06/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	07:50am
Monitor 2	0.000	ppm	07:50am
Monitor 3	0.000	ppm	07:50am
Monitor 4	0.000	ppm	07:50am
Monitor 5	0.000	ppm	07:50am
Monitor 6	0.000	ppm	07:50am
Monitor 7	0.000	ppm	07:50am
Monitor 8	0.000	ppm	07:50am
Monitor 9	0.005	ppm	07:50am
Monitor 10	0.000	ppm	07:50am
Monitor 11	0.000	ppm	07:50am
Monitor 12	0.003	ppm	07:50am
Monitor 13	0.003	ppm	07:50am
Wind Speed	0.208	mph	07:50am
Wind Direction	326.393		07:50am

### **Odour Log (Thames)**

**Wednesday 2<sup>nd</sup> June 2021**

**DAY SHIFT**

**Temp.** 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.** Cool.

**Weather.** Overcast night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues, none reported.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Thursday 3<sup>rd</sup> June 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 problems.

**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, none reported.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Friday 4<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No problems.

**Operational issues / causes observed.** Blank.

**Actions taken.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Patchy rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour problems.

**Operational issues / causes observed.** Blank.

**Actions taken.** Blank.

**Saturday 5<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Warm.

**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.** OM5 0.016, 02:54-03:09.

**Operational issues / causes observed.** Blank

**Actions taken.** Blank.

**Sunday 6<sup>th</sup> June 2021**

**DAY SHIFT**

**Temp.** Hot.

**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.** Blank.

**Actions taken.** Blank.

**NIGHT SHIFT**

**Temp.** Warm.

**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 7<sup>th</sup> June 2021****DAY SHIFT**

**Temp.** 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.** 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.

**Tuesday 8<sup>th</sup> June 2021****DAY SHIFT**

**Temp.** Hot.

**Weather.** Sunny.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM9 12:39-12:51-0.019ppm.

Odour complaint received at 13:30 from Weavers Close.

**Operational issues / causes observed.** Waste burner failed to start in auto. Odour generated from high digester bell heights.

East inlet odour from skips.

**Actions taken.** ICA called out to investigate control issues with burner.

Skip area washed down.

**NIGHT SHIFT**

**Temp.** Warm.

**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.



### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
02/06/2021	0	1297	1116	2413	1720	4133
04/06/2021	0	1152	740	1892	1392	3284
07/06/2021	0	862	885	1747	1720	3467

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 open at the time of the inspection due to ongoing maintenance.

### 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.

As LBH note, this has not been required in the last week.

## **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 and 6** were both in service and had low wet seals that were both bubbling off gas minimal amounts of gas.

**Digesters 7, 8 and 9** were all in service. All had high bells and were all bubbling heavy and spitting on one side.

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

**Digesters 13 and 14** were both in service. All had very wet high seals that were bubbling off minimal amounts of gas.

**Digester 15** was out of service.

**Digester 16** was in service and the bell height was high. The digester was spitting and bubbling and beginning to spill on one side.

**Digester 17** was in service and had a partially dry 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

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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 74 and 78 that was covering less approx. 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, both were covered with tarpaulins.

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 first set of doors of the screen house was open at the time of the inspection. No other issues appeared evident.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

### **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).  
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 7 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 50% of its length (noticeably between lane 25 and lane 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: 08/06/2021**

Additional notes:

OCU 12

Sodium Hydroxide 1.3% re-order

Sodium Hypochlorite 50.2%

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	18.77 16.15 15.01	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	0.00 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	0.00 0.00 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 1 <sup>st</sup> June 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Tom Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – approximately 5% of tank covered by grit – requires further flushing – Hopper 1 approx. 35% full, Hoppers 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 50% of tank covered by grit – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 25% of tank covered by grit – requires further flushing – All Hoppers approx. 10% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 40% of tank covered by grit – requires further flushing – All Hoppers approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – All Hoppers approx. 30% full – requires draining/over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** – Tank empty – approximately 50% of tank covered by grit – requires further flushing – All Hoppers full – requires draining/over-pumping

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty – approximately 10% of tank covered by grit – requires further flushing – All Hoppers approx. 75% full – requires draining/over-pumping.

**Tank 6B** – Tank empty – approximately 50% of tank covered by grit – requires further flushing – Hopper 1 100% full, Hoppers 2 & 3 approx. 30% full – requires draining/over-pumping.

**Tank 7A** – Tank approx. 40% covered by effluent backfilling from return valve – Hoppers 100% full - requires draining/over-pumping.

**Tank 7B** – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 8A** – Tank approx. 25% covered by effluent backfilling from return valve – Hoppers 100% full - requires draining/over-pumping.

**Tank 8B** – Tank empty – approximately 50% of tank covered by grit – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

### **Complaints**

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



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

The Council received no complaints by email from MRAG.

*Thames Water controller advised that they had received no direct complaints in the preceding week.*

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	.000	ppm	13:31
Monitor 2	.000	ppm	13:31
Monitor 3	.000	ppm	13:31
Monitor 4	.000	ppm	13:31
Monitor 5	.000	ppm	13:31
Monitor 6	.000	ppm	13:31
Monitor 7	.000	ppm	13:31
Monitor 8	.000	ppm	13:31
Monitor 9	.000	ppm	13:31
Monitor 10	.000	ppm	13:31
Monitor 11	.003	ppm	13:31
Monitor 12	.000	ppm	13:31
Monitor 13	.003	ppm	13:31
Wind Speed	5.8	mph	13:31
Wind Direction	84°		13:31

### **Odour Log (Thames):**

#### **Wednesday 26<sup>th</sup> May 2021:**

**AM** – Warm – Sunny with patchy clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 27th May 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 28th May 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues non (Sic) reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Warm – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odours issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Saturday 29th May 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues non (Sic) reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Sunday 30<sup>th</sup> May 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** “No odour issues non (Sic) reported.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 31<sup>st</sup> May 2021:**

**AM** – Warm – Sunny.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 1<sup>st</sup> June 2021:**

**AM** – Hot – Sunny.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues non (Sic) reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
26/05/21	0	1134	1304	2438	1809 (TW figure 2409)	4247 (TW figure 4847)
28/05/21	0	1134	1116	2250	1416	3666

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** – Out of use.

**Digester 6** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 7** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

clean-up – Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 9** - In use – seal level approx. 3ft below coping stones – good seal.

**Digester 10** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 3ft below coping stones – good seal – Bell height high requiring draw down of Biogas.

**Digester 12** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 14** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 3ft below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – good seal.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**GENERAL**

**Sludge Screening House**

All doors open at the time of inspection – contractors on site working on screens.

**Imported Sludge**

No imports daily for preceding seven days.

**Final Settlement Tanks East Side of Works**

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

**Skips**

1x 8 yard grit/rag skip (full) - covered with tarpaulin & 1x 8 yard general waste in Service Road at rear of Sludge Screen House.

**East Side Raw Sludge Screen House**

Doors open at time of inspection – facility currently out of service – contractors on site undertaking maintenance.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

**West side primary settlement tanks (PST)**

The doors are kept open during maintenance work as a health and safety.

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**Pasteurisation Plant**

Six streams running.

**New Works (West Side)**

Feed Channel for Aeration Lanes 90% obstructed – requires jetting.  
Large thick crust evident across majority of tank.

**Odour Control Unit (OCU) performance monitoring – 01/06/21**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	18.70 21.00 19.30	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	1.010 1.011 1.011	0.6	No
Transfer PS inlet	16.00	Unknown	Unknown



	16.00 16.00		
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.111 0.110 0.112	0.5	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown



**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** Tuesday 18<sup>th</sup> May 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Tom Costin (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A - Tank 3B** Tanks were all over 50% full of effluent due to high rainfall in proceeding days- All Amajets were observed and were in operation.

**Storm Feed Channel** - The level of effluent in the feed channels were higher than usual at approx. 20% in depth along its entire length and murky and black in colour. some fatty deposits observed.

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

**Tank 6A – Tank 8B** Tanks were all over 50% full of effluent due to high rainfall in proceeding days- All Amajets were observed and were in operation.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Storm Feed Channel** - The level of effluent in the feed channels were higher than usual at approx. 20% in depth along its entire length and murky and black in colour. some fatty deposits observed.

There were no observation of malodour at this locality of the works.

### **Complaints**

The Council directly received ONE complaint via telephone in the preceding week.

**A15221**- A complaint was received via telephone at 16:40 on the 6<sup>th</sup> of May 2021 from the Worton Road area of Isleworth. The out of hours officer responded to the call at approx. 17:22. A monitoring visit was made at 17:50 – Unable to carry out a H25 readings due to heavy rain- subjective assessment made not deemed a nuisance.

The Council directly received THREE complaints via online method in the preceding week.

**A14939**- Online complaint received on the 11<sup>th</sup> of May 2021 from a resident in the Sussex Avenue area of Isleworth. The complainant was written to on the 14<sup>th</sup> of May advising them to call the out of hours service as and when the odour is apparent.

**A14997**- A complaint was received from the Weavers close area of Isleworth. On the 12<sup>th</sup> of May 2021. A letter was sent to the complaint on the 14<sup>th</sup> of May 2021 encouraging the complainant to use the out of hours service.

**A15097** – A complaint was received from Harlequin Close on the 14<sup>th</sup> of May 2021. In response a letter was sent to the complaint encouraging them to call the Mogden dedicated service.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 18/05/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:27p m
Monitor 2	0.050	ppm	13:27p m
Monitor 3	0.000	ppm	13:27p m
Monitor 4	0.000	ppm	13:27p m
Monitor 5	0.003	ppm	13:27p m
Monitor 6	0.000	ppm	13:27p m
Monitor 7	0.000	ppm	13:27p m
Monitor 8	0.005	ppm	13:27p m
Monitor 9	0.004	ppm	13:27p m
Monitor 10	0.000	ppm	13:27p m
Monitor 11	0.000	ppm	13:27p m
Monitor 12	0.000	ppm	13:27p m
Monitor 13	0.003	ppm	13:27p m
Wind Speed	10.321	mph	13:27p m

Wind Direction	274.511		13:27p m	
<b><u>Odour Log (Thames)</u></b>  <b><u>Wednesday 12<sup>th</sup> May 2021</u></b> <b>DAY SHIFT</b> <b>Temp.</b> Warm <b>Weather.</b> Sunny Patchy with Clouds <b>Odour Readings</b> All Odour monitors are in operation except OM2 & 13. <b>Time:</b> Blank. <b>Observations / Customer Complaint.</b> No odour issues <b>Operational issues / causes observed.</b>				

No obvious odours coming from works informed Roxy of observations

**NIGHT SHIFT**

**Temp.** Cool

**Weather.** Overcast night .

**Odour Readings.** All Odour monitors are in operation except OM2 & 13

**Time:** Blank

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**Thursday 13<sup>th</sup> May 2021**

**DAY SHIFT**

**Temp.** War,

**Weather.** Rain with sunny spells .

**Odour Readings.** All Odour monitors are in operation except OM2 & 13

**Time:** 17:30

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool

**Weather.** Overcast night .

**Odour Readings.** All Odour monitors are in operation except OM2 & 13

**Time:** Blank

**Observations / Customer Complaint.**

No odour issues reported

**Operational issues / causes observed.** Blank.

**Friday 14<sup>th</sup> May 2021**

**DAY SHIFT**

**Temp.** Warm

**Weather.** Cloudy with sunny spells .  
**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 17:30

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Overcast night.

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 05:30.

**Observations / customer Complaint.**

No odour issues found or reported

**Operational issues / causes observed.** Blank.

**Saturday 15<sup>th</sup> May 2021**

**DAY SHIFT**

**Temp.** Warm .

**Weather.** Rain with sunny spells

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 05:30.

**Observations / Customer Complaint.**

OM5 spiked to 0.016ppm duration less than 15 minute

**Operational issues / causes observed.**

Blanks

**Sunday 16<sup>th</sup> May 2021**

**DAY SHIFT**

**Temp.** Cool

**Weather.** Rain

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported

**Operational issues / causes observed.** Blank

**NIGHT SHIFT**

**Temp.** Cool

**Weather.** Rain

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 05:30.

**Observations / Customer Complaint.**

OM7 spiked to 0.065ppm 23:35 duration less than 15 minute

**Operational issues / causes observed.** Blank.

**Monday 17<sup>th</sup> May 2021**

**DAY SHIFT**

**Temp.** Warm

**Weather.** Rain with sunny spells

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found .

**Operational issues / causes observed.** Blank

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Patchy Rain

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues found or reported

**Operational issues / causes observed.** Blank

**Tuesday 18<sup>th</sup> May 2021**



**DAY SHIFT**

**Temp.** Warm

**Weather.** Rain with sunny spells.

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 17:30

**Observations / Customer Complaint.**

No odour issues

**Operational issues / causes observed.** Blank

**NIGHT SHIFT**

**Temp.** Cool

**Weather.** Rain.

**Odour Readings.** All Odour monitors are in operation except OM2

**Time:** 05:30

**Observations / Customer Complaint**

No odour issues .

**Operational issues / causes observed.** Blank

### **Sludge Dip Records**

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
12/05/2021	0	824	2156	2980	1240	4220
14/05/2021	0	1134	2156	3290	1720	5010
17/05/2021	0	1007	2156	3163	1720	4883

As LBH note, this has not been required in the last week.

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 0 import of sludge per day.

### **No.5 Pumping Station**

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

### **Sludge Import Area**

The sludge import area was clean & tidy. No odours detected at time of inspection. TW 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 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 thick sludgy seal approx. 3ft below the coping stone – there were no signs of a previous spillage. Good seal.

**Digester 6** was in service and had a high thick sludgy seal approx. 1ft below the coping stone – there were no signs of a previous spillage on coping stones which were all clean. This was a good seal.

**Digester 7** was in service and had a high thick sludgy seal approx. 1ft below the coping stone – there were no signs of a previous spillage on coping stones which were all clean. One side of the digester was erupting and very gassy. This was a good seal.

**Digester 8** was in service and had a low wet seal approx. 3ft below the coping stone – there were no signs of a previous spill.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

**Digester 9** was in service and had a low wet seal approx. 2ft below the coping stone – there were no signs of a previous spillage.

**Digesters 10 & 11** were both in service and had low wet seal approx. 2ft below the coping stone – there were no signs of a previous spillage on coping stones which were all clean and tidy.

**Digester 12** was in service and had a low thick sludgy seal approx. 3ft below the coping stone. A good seal.

**Digester 13** was in service and had a low wet seal approx. 2ft below the coping stone – there were no signs of a previous spillage on coping stones which were all clean.

**Digester 14** was in service and had a low thick sludgy seal approx. 2ft below the coping stone. Good seal all round.

**Digester 15** was out of service.

**Digester 16** was in service and had a good thick seal. There were no signs of previous spillages. Level of sludge was high approx. 1ft below coping stone and in some places higher.

**Digester 17** was in service and had a low wet seal all the way around that was approx. 3ft below coping stones.

**Digesters 18 & 19** were both out of service.

**Digester 20** was in service and had a good thick seal approx. 2ft below coping stones. No sign of previous spillages.

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). All tanks/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits. The water hoses/sprinklers were breaking up any remainder residue across the surface.

### **Skips**

1x large open grit skip (full) – covered with tarpaulin  
1x 8 yard grit/rag skip (full) - covered with tarpaulin  
1x 8 yard general waste in the Service yard of the Sludge Screen House which was empty and uncovered

No other skips observed on site.

### **East Side Screen House**

All the doors at the screen house were open at the time of the inspection contractors working at site at time of inspection. Advised TW these doors must remain closed.

### **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 road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it (No change from previous visit on 20<sup>th</sup> April 2021)

The doors are kept open during maintenance work as a health and safety.

### **West side primary settlement tanks (PST)**

Rectangular PSTs are now covered and odour controlled. TW advised no concerns or issues. No noticeable odours at time of inspection.

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

Circular PST 12 has been drained down and 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 appeared to be free flowing with the internal dividing walls being visible again in some areas. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area same as previous weeks.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 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.

**Odour Control Unit (OCU) performance monitoring: 17<sup>th</sup> May 2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	NO DATA	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0,02 0.02 0.02 Ave:0.02	0.05	YES
West inlet OCU	0.01 0.01 0.01 Ave:0.01	0.05	YES
Sludge reception inlet	NO DATA	Unknown	Unknown
Sludge reception outlet	NO DATA	0.8	Unknown

Thickening plant inlet	NO DATA	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	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	YES
Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes





## Mogden Sewage Treatment Works

### TW Site Inspection

<p><b>Date of inspection:</b> Tuesday 11<sup>th</sup> May 2021 (12:50pm)</p>	
<p><b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)</p>	
LB Hounslow Observation	Thames Water Action / Response
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hoppers 1 and 2 were both &gt;25% full, hopper 3 was approx. 65% and required draining down or over-pumping.</p> <p><b>Tank 1B</b> 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. &gt;25% full.</p> <p><b>Tank 2A</b> 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. &gt;25% full.</p> <p><b>Tank 2B</b> 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. &gt;25% full.</p> <p><b>Tank 3A</b> 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>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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 5<sup>th</sup> 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 10<sup>th</sup> 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 (H<sub>2</sub>S) 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 5<sup>th</sup> 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 6<sup>th</sup> 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 7<sup>th</sup> 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 8<sup>th</sup> 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 9<sup>th</sup> 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 10<sup>th</sup> 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 11<sup>th</sup> 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	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
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.

As LBH note, this has not been required in the last week.

## **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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 4 <sup>th</sup> May 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Tom Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – approximately 5% of tank covered by grit – requires further flushing – Hopper 1 approx. 75% full, Hoppers 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 80% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 25% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 25% of tank covered by grit and dried sludge – requires further flushing – Hopper 1 approx. 40% full, Hoppers 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 60% of tank covered by grit and dried sludge – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 20% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 30% full – requires draining/over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 50% full – requires draining/over-pumping

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 75% full – requires draining/over-pumping

**Tank 6B** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

**Tank 7A** – Tank approx. 10% covered by effluent backfilling from return valve – Hoppers 1, 2 & 3 100% full - requires draining/over-pumping.

**Tank 7B** – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

**Tank 8A** – Tank approx. 60% covered by effluent backfilling from return valve – Hoppers 1, 2 & 3 100% full - requires draining/over-pumping.

**Tank 8B** – Tank empty – approximately 20% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 10% capacity - no local odours.

### **Complaints**

**The Council directly received no complaints by telephone in the**



**preceding week.**

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

**The Council received no complaints by email from MRAG.**

***Thames Water controller advised that they had received no direct complaints in the preceding week.***

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	.000	ppm	13:07
Monitor 2	.000	ppm	13:07
Monitor 3	.000	ppm	13:07
Monitor 4	.000	ppm	13:07
Monitor 5	.000	ppm	13:07
Monitor 6	.000	ppm	13:07
Monitor 7	.000	ppm	13:07
Monitor 8	.004	ppm	13:07
Monitor 9	.003	ppm	13:07
Monitor 10	.000	ppm	13:07
Monitor 11	.000	ppm	13:07
Monitor 12	.000	ppm	13:07
Monitor 13	.000	ppm	13:07
Wind Speed	20.0	mph	13:07
Wind Direction	282°		13:07

**Odour Log (Thames):**

**Wednesday 28<sup>th</sup> April 2021:**

**AM – Warm – Cool – Rain with Sunny Spells.**

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Thursday 29th April 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM12 @ 20:55-21:09 max 0.016."

**Operational Issues/Causes:** "Digester area checked – All OK."

**Actions:** No data.

**Friday 30th April 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.021ppm 00:06-00:21 & 0.018ppm 20:36-21:05."

**Operational Issues/Causes:** "No odour in area detected."

**Actions:** "Odour suppression unit running in PAS area."

**Saturday 1st May 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "OM9 0.017 14:05-14:20."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.016ppm 00:52-00:06 <15 minutes."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

### **Sunday 2<sup>nd</sup> May 2021:**

**AM** – Warm – Sunny with Patch Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 0.024ppm 21:50-22:07, 0.016ppm 01:07-01:21, 0.025ppm 02:51-03:07."

**Operational Issues/Causes:** "Area checked. Strong smell of bio gas when siloxane plant was regenerating otherwise nothing out of the ordinary found."

**Actions:** No data.

### **Monday 3<sup>rd</sup> May 2021:**

**AM** – Cool – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Tuesday 4<sup>th</sup> May 2021:**

**AM** – Cool – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
28/04/21	0	1200	1969	3169	2385	5554
30/04/21	0	885	1030	1915	2242	4157
03/05/21	0	1012	2530	3542	1777	5319

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 6** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 7** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

**Digester 8** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling vigorously.

**Digester 9** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 10** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

**Digester 11** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 12** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling vigorously.

**Digester 14** - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 4ft below coping stones – seal weak and bubbling.

## **GENERAL**

### **Sludge Screening House**

Roller doors open at the time of inspection – other doors closed – contractors on site working on screens.

### **Imported Sludge**

No imports daily for preceding seven days.

### **Final Settlement Tanks East Side of Works**

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

### **Skips**

1x large open grit skip (full) – covered with tarpaulin, 1x 8 yard grit/rag skip (full) - covered with tarpaulin & 1x 8 yard general waste in Service Road at rear of Sludge Screen House.

### **East Side Raw Sludge Screen House**

Doors closed at time of inspection.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

### **West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**Pasteurisation Plant**

Seven streams running.

**New Works (West Side)**

Feed Channel for Aeration Lanes 100% obstructed – requires jetting.  
Large thick crust evident across majority of tank.

**Odour Control Unit (OCU) performance monitoring – 04/05/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	36.78 35.81 37.91	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	1.021 1.017 1.022	0.6	No
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	0.00	0.5	Yes



	0.00 0.00		
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	11.98 11.37 11.21	0.5	No



## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 20<sup>th</sup> April 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Tom Costin (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** - Tank was clean and empty - All hoppers had been drained down to the bottom. Hopper one was below 25% level. Hoppers 2 and 3 were drained down.

**Tank 1B** - Tank was clear of effluent however had a slight sludgy surface toward the river end of the tank. All three hoppers were below 25% level but still needed draining down.

**Tank 2A** - was clear and had a clean surface. Hoppers 1 and 3 were empty, however hopper 2 needed draining down.

**Tank 2B** - mostly was covered with dried gritty effluent and all Hoppers 1,2 and 3 were full to the top and needed draining down.

**Tank 3A** - The tank was clear of effluent however all hoppers were full to the top and needed draining down.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Tank 3B** - This tank was all clear of effluent and Hoppers 1, 2 and 3 were all drained down.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and murky and black in colour. some fatty deposits observed

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

**Tank 6A** – Tank was clean and clear of effluent however Hoppers 1, 2 and 3 were over 50 % full of effluent- Hoppers needed draining down.

**Tank 6B** – Tank was mostly covered with a dry gritty surface and all Hoppers needed cleaning out and draining down.

**Tank 7A and 7B** – Both tanks had a thick gritty surface that needed cleaning and all the hoppers of both tanks needed draining down. Shallow Hoppers.

**Tank 8A and Tank 8B** – The surface of the majority of both tanks was full of effluent starting at the hoppers- all the hoppers were completely full and overflowing. This was due to the cracks in the hoppers and tanks.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and was a murky and black shade / colour – No fatty deposits floating on surface.

There were no observation of malodour at this locality of the works.

### Complaints

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

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

The Council received no complaints by email from MRAG.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 20/04/2021 at the time of the inspection are below.

Monitor 1	0.004	ppm	13:18p m
Monitor 2	0.004	ppm	13:18p m
Monitor 3	0.005	ppm	13:18p m
Monitor 4	0.000	ppm	13:18p m
Monitor 5	0.004	ppm	13:18p m
Monitor 6	0.000	ppm	13:18p m
Monitor 7	0.004	ppm	13:18p m
Monitor 8	0.004	ppm	13:18p m
Monitor 9	0.004	ppm	13:18p m
Monitor 10	0.000	ppm	13:18p m

Monitor 11	0.000	ppm	13:18p m
Monitor 12	0.004	ppm	13:18p m
Monitor 13	0.000	ppm	13:18p m
Wind Speed	0.212	mph	13:18p m
Wind Direction	111.430		13:18p m

**Odour Log (Thames)**

**Wednesday 14<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy with sunny spells .

**Odour Readings** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.025ppm at 10:28 and flat lined thereafter at this level.

**Operational issues / causes observed.**

No odour reports.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear night .

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**Thursday 15<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain with sunny spells .

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold

**Weather.** Overcast night.

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues reported.

**Operational issues / causes observed.** Blank.

**Friday 16<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**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 Odour monitors are in operation except OM2 which had a Faults.

**Time:** 05:30.

**Observations / customer Complaint.** No odour issues/Spikes or complaints.

**Operational issues / causes observed.** Blank.

**Saturday 17<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Warm .

**Weather.** Sunny with Patchy clouds.

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**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 Odour monitors are in operation except OM2 which had a Fault.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM3 spiked to 0.0016ppm at 00:33-00:48 odour complaint received from central Avenue.

**Operational issues / causes observed.**

Usual smells from PAS site checked carried out – nothing abnormal found.

**Sunday 18<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**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 Odour monitors are in operation except OM2 which had a Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour spikes or complaints.

**Operational issues / causes observed.** Blank.

**Monday 19<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny with Patchy clouds.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found .

**Operational issues / causes observed.** Blank

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear nights.



**Odour Readings.** All Odour monitors are in operation except OM2 which had a Fault.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM5 spiked on three occasions:

0.022ppm at 02:50-03:06.

0.021ppm at 23:20-23:51.

0.021ppm at 22:36-23:05.

**Operational issues / causes observed.**

Pas area checked- odour from drain on main drive.

**Action taken**

OCU12 ppb monitor not working.

**Tuesday 20<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour spikes.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear Nights.

**Odour Readings.** All Odour monitors are in operation except OM2 which had a Faults.

**Time:** 20:00/07:30 .

**Observations / Customer Complaint.**

20:00 - Customer complaint received from west of the site

07:30 – OM4 & OM10 breaching level overnight to max 0.020ppm after 21:30.

**Operational issues / causes observed.**

In response to customer complaint Digester area and west works checked no obvious odours found Digester 7 gassing a little – flare set point lowered to bring dome down.

In response to breaching levels site wide checks undertaken nothing of note found.	
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### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
14/04/2021	0	946	1218	2164	4393	6557
16/04/2021	0	1091	1200	2291	4393	6684
19/04/2021	0	824	1949	2773	4721	7494

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 0 import of sludge per day.

### No.5 Pumping Station

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

### Sludge Import Area

As LBH note, this has not been required in the last week.

The sludge import area was clean & tidy. No odours detected at time of inspection. TW 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 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 thick seal all the way around the digester – there were no signs of a previous spillage on coping stones but the walkways around the digester had historic gritty surface that needed cleaning. The depth of the seal was under 2ft.

**Digester 6** was in service and had a low thick seal approx. 2ft below coping stones. Good thick seal all around. The walkway around the digesters were gritty / crusty needed cleaning.

**Digester 7** was in service and had a low thick seal approx. 3ft below coping stones.

**Digester 8** was in service and had a low thick sludgy seal approx. 2ft below coping stones. Good thick seal all around.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 9** was in service and had a very high wet bubbly seal that was 1ft below the coping stones. Gassing in places but no sign of previous spillage – coping stones were tidy.

**Digesters 10 & 11** were both in service and had good thick seals that were bubbling off minimal amounts of gas.

**Digester 12** was in service and had a thick seal all round that was bubbling off minimal amounts of gas. The sludge level was approx. 4ft below the coping stone.

**Digester 13** was in service and had a very thick sludgy seal that was at the same level as the coping. No previous spillage noticed-coping stones were clean

**Digester 14** was in service and had a thin wet seal approx. 2ft below coping stones. There were signs of previous spillage.

**Digester 15** was out of service.

**Digester 16** was in service and had a good thick seal. There were signs of previous spillage. Level of sludge was high approx. 1ft below coping stone in some places higher.

**Digester 17** was in service and had a wet seal that was approx. 4ft below coping stones.

**Digesters 18 & 19** were both out of service.

**Digester 20** was in service and had a low thick seal approx. 2ft below coping stones. Good thick seal all around.

The walkways around the lower end of the Digesters 5 - 10 had dried gritty surfaces possibly from previous historic spillages that needed to be cleaned and maintained. TW advised.

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). All tanks/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits. The water hoses/sprinklers were breaking up any remainder residue across the surface.

### **Skips**

1x large open grit skip (full) – covered with tarpaulin.  
1x 8 yard grit/rag skip (full) - covered with tarpaulin.  
1x 8 yard general waste in Service yard of the Sludge Screen House.

No other skips observed on site.

### **East Side Screen House**

The middle set of blue screen house doors were open at the time of the inspection no contractors working at site at time of inspection. Advised TW these doors must remain closed.

### **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 road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it (No change from previous visit on 23<sup>rd</sup> March 2021).

### **West side primary settlement tanks (PST)**

Rectangular PSTs are now covered and odour controlled. TW advised no concerns or issues. No noticeable odours at time of inspection.

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

Circular PST 12 has been drained down and 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 appeared to be free flowing with the internal dividing walls being visible again in some areas. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 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.

**Odour Control Unit (OCU) performance monitoring: 20<sup>th</sup> April 2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	NO DATA	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.04 0.04 0.04 Ave:0.04	0.05	YES
West inlet OCU	0.00 0.00 0.17 Ave:0.05	0.05	Yes



Sludge reception inlet	NO DATA	Unknown	Unknown
Sludge reception outlet	NO DATA	0.8	Unknown
Thickening plant inlet	NO DATA	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	YES
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	YES
Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 13 <sup>th</sup> April 2021 (12:45pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was empty and clean. Hopper-1 was &gt;25% full, hoppers-2 and 3 were drawn down to low level.</p> <p><b>Tank 1B</b> was empty but had dry grit across 25% of the top end of the tank. Hoppers-2 and 3 were both &gt;25% full, hopper-3 was 25% full.</p> <p><b>Tank 2A</b> was empty but had large areas of dry grit on the tanks surface (top and bottom end and along right hand side). Hopper-1 was &gt;25% full, hopper-2 was 75% full and hopper-3 was approx. 30% full.</p> <p><b>Tank 2B</b> was empty but had large areas of dry grit on the tanks surface (top end and along left hand side). Hoppers-1, 2 and 3 were all 75% full.</p> <p><b>Tank 3A</b> was empty and clean. Hoppers-1, 2 and 3 were all 75% full.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** was empty and clean.

Hoppers-1 and 2 were full, hopper-3 was 75% full.

**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 not in use but had full hoppers and effluent across 75% of tanks surface due to faulty non-return valve.

**Tank 6B** was empty but had dry grit across 25% of the bottom end of the tank.

Hopper-1 was full, hoppers-2 and 3 were both 75% full.

Odour was noticeably present in this location.

**Tank 7A** was empty but had dry grit across 25% of the bottom end of the tank.

Hoppers-1, 2 and 3 (shallow hoppers) were all full of green stagnant water.

**Tank 7B** was empty but had dry grit and sludge across the entire tanks surface.

Hoppers-1, 2 and 3 (shallow hoppers) were all full of stagnant water.

Odour was noticeably present in this location.

**Tank 8A** was not in use but had full hoppers and effluent across 50% of tanks surface.

**Tank 8B** was not in use but had full hoppers and effluent across 50% of tanks surface. Dry grit was also present at the top end of the tank

**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 no complaints by either email or the on-line web system in the preceding week.

The Council received no complaints by email from MRAG.

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 13/04/2021 at the time of the inspection are below.

Monitor 1	0.004	ppm	12:51pm
Monitor 2	0.000	ppm	12:51pm
Monitor 3	0.000	ppm	12:51pm
Monitor 4	0.000	ppm	12:51pm
Monitor 5	0.004	ppm	12:51pm
Monitor 6	0.003	ppm	12:51pm
Monitor 7	0.004	ppm	12:51pm
Monitor 8	0.005	ppm	12:51pm
Monitor 9	0.004	ppm	12:51pm
Monitor 10	0.000	ppm	12:51pm
Monitor 11	0.003	ppm	12:51pm
Monitor 12	0.005	ppm	12:51pm
Monitor 13	0.000	ppm	12:51pm
Wind Speed	4.324	mph	12:51pm
Wind Direction	288.517		12:51pm

**Odour Log (Thames)**

**Wednesday 7<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour spikes.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 00.17ppm 04:05-05:05.

**Operational issues / causes observed.** Occasional odour from PAS area. No sludge spills.

**Thursday 8<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM5 0.028ppm 10:49-11:05, 0.017ppm 16:20-16:35.

**Operational issues / causes observed.** PAS area checked, odour from vent on main drive.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 0.016ppm 21:20-21:35, 0.024ppm 23:05-23:30, 0.017ppm 01:20-01:35, 0.017ppm 04:21-04:35.

**Operational issues / causes observed.** PAS area checked. No sludge spills. Overflow water traps checked. Confirmed that OCU12 is running.

**Friday 9<sup>th</sup> April 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.

**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.

**Saturday 10<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM10 0.016ppm 03:54-04:06.

**Operational issues / causes observed.** High bell heights, flare running.

**Sunday 11<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.

#### **NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM1 at 01:05-02:03, max 0.015ppm.

OM5 at 01:51-03:19, max 0.018ppm.

**Operational issues / causes observed.** Storm tanks. Vent on main drive.

**Actions Taken.** Pump down storm tanks.

#### **Monday 12<sup>th</sup> April 2021**

##### **DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny with patchy cloud.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

##### **NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM2, OM3 and OM5 spiked for less than 15 minutes.

**Operational issues / causes observed.** Vent on main drive. Storm tanks.

#### **Tuesday 13<sup>th</sup> April 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM2 spiked at 21:40-21:55, max 0.028ppm.

**Operational issues / causes observed.** No odour sources found, east inlet area hosed down.



### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
07/04/2021	0	1260	2530	3790	1720	5510
09/04/2021	0	740	1073	1813	2376	4189
12/04/2021	0	801	1218	2019	2704	4723

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.

TW were advised they are frequently hosing this area down.

### Raw Sludge Screening House

As LBH note, this has not been required in the last week.

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 reasonable seal with no visible sign of bubbling off gas

**Digester 6** was out of service.

**Digester 7** was in service and had a wet seal that was bubbling off minimal amounts of gas. However, one side of the digester was bubbling and spitting and it was not that the bell height was high.

**Digesters 8, 9, 10, 11, 12, 13 and 14** were all in service. All had very wet seals (virtually no seals) that were all bubbling off minimal amounts of 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. However, one side of the digester was bubbling and spitting and a spill had occurred; It was not that 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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Although there was evidence of anti-foaming agent in use, which TW advised was being applied daily to all operational digesters, there is currently an issue with the automatic anti-foam pumps.

Thames advised this is being partly addressed by manually dosing the 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 other than surface scum covering approx. 30% of tank 75-77, 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 was also empty.

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**

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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. 60% 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'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. 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 7 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, 22 and 21).

**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.

**Odour Control Unit (OCU) performance monitoring: 13/04/2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.03 0.02 0.02	Unknown	Unknown
Main pumping station outlet	0.03 0.03 0.03	0.2	Unknown
East OCU	0.03 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	0.03 0.03 0.03	0.6	Yes
New West inlet (OCU 11)	0.02 0.01 0.01	0.5	No
Pasteurisation (OCU 12)	0.04 0.03 0.04	0.5	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



**Mogden Sewage Treatment Works**

**TW Site Inspection**

<b>Date of inspection:</b> 7 <sup>th</sup> April 2021	
<b>Attendees:</b> Mr Steven Maunders and Mr Dan Grady (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> – Tank empty – approximately 5% of tank covered by grit – requires further flushing – Hoppers 1, 2 &amp; 3 approx. 75% full – requires draining/over-pumping.</p> <p><b>Tank 1B</b> – Tank empty – approximately 50% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.</p> <p><b>Tank 2A</b> – Tank empty – approximately 75% of tank covered by grit and dried sludge – requires further flushing – Hopper 1 approx. 25% full, Hopper 2 approx. 80% full and Hopper 3 100% full – requires draining/over-pumping.</p> <p><b>Tank 2B</b> – Tank empty – approximately 75% of tank covered by grit and dried sludge – requires further flushing – Hoppers 1 &amp; 3 approx. 80% full, Hopper 2 approx. 90% full – requires draining/over-pumping.</p> <p><b>Tank 3A</b> – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers approx. 75% full – requires draining/over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 3B** – Tank empty – approximately 10% of tank covered by grit – requires further flushing – Hoppers 100% full – requires draining/over-pumping

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank approx. 90% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Tank 6B** – Tank empty – approximately 50% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 7A** – Tank empty – approximately 75% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 7B** – Tank empty – approximately 90% of tank covered by grit and sludge – requires further flushing – Hoppers 100% full – requires draining/over-pumping.

**Tank 8A** – Tank approx. 20% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Tank 8B** – Tank approx. 40% covered by effluent backfilling from return valve – requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 25% capacity - no local odours.

### **Complaints**

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



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

The Council received no complaints by email from MRAG.

*Thames Water controller advised that they had received no direct complaints in the preceding week.*

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	.004	ppm	13:23
Monitor 2	.000	ppm	13:23
Monitor 3	.000	ppm	13:23
Monitor 4	.000	ppm	13:23
Monitor 5	.005	ppm	13:23
Monitor 6	.000	ppm	13:23
Monitor 7	.005	ppm	13:23
Monitor 8	.003	ppm	13:23
Monitor 9	.004	ppm	13:23
Monitor 10	.000	ppm	13:23
Monitor 11	.004	ppm	13:23
Monitor 12	.006	ppm	13:23
Monitor 13	.000	ppm	13:23
Wind Speed	8.1	mph	13:23
Wind Direction	300°		13:23

### **Odour Log (Thames):**

#### **Wednesday 31<sup>st</sup> March 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked to max 0.025ppm 07:48-

08:34. OM8 spiked to max 0.019ppm 08:07-09:04.”

**Operational Issues/Causes:** “No obvious odours found.”

**Actions:** No data.

**PM** – Warm – Clear Night.

All OMU’s in use.

**Observations/Complaints:** “OM5 0.048 @ 20:49-22:20, OM3 0.038 @ 22:02-22:17, OM3 0.023 @ 22:33-23:02, OM5 0.015 @ 23:20-00:18, OM5 0.042 @ 00:34-01:19, OM5 0.038 @ 01:35-02:04, OM7 0.017 @ 21:48-22:02, OM8 0.022 @ 22:07-22:22, OM12 0.055 @ 00:06-00:37, OM8 0.033 @ 00:35-01:05, OM9 0.021 @ 01:49-02:18.”

**Operational Issues/Causes:** “OM3 aeration units on E Battery, OM5 site drains, OM7 & 89 & 12 PAS area, OM9 Digester area.”

**Actions:** No data.

**Thursday 1<sup>st</sup> April 2021:**

**AM** – Warm – Cloudy with Sunny Spells.

All OMU’s in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU’s in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Friday 2<sup>nd</sup> April 2021:**

**AM** – Warm – Sunny with Patchy Clouds.

All OMU’s in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU’s in use.

**Observations/Complaints:** “No odour issues found or reported.”

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Saturday 3<sup>rd</sup> April 2021:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Sunday 4<sup>th</sup> April 2021:**

**AM** – Warm - Sunny.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

**Monday 5<sup>th</sup> April 2021:**

**AM** – Cool – Sunny with Patch Clouds.

All OMU's in use.

**Observations/Complaints:** "No odour spikes."

**Operational Issues/Causes:** "PST11 and Storm Tanks."

**Actions:** No data.

**PM** – Cool – Overcast Night.

OMU 4 out of service - All other OMU's in use.

**Observations/Complaints:** "OM5 spiked to max 0.027ppm at 22:00."

**Operational Issues/Causes:** "Some odour from sewer drain cover on Main Drive."

**Actions:** No data.

**Tuesday 6<sup>th</sup> April 2021:**

**AM** – Cold – Sunny with Patch Clouds.

All OMU's in use.

**Observations/Complaints:** "OM5 0.021ppm @ 16:19-16:33."

**Operational Issues/Causes:** "Odour from vent on Main Drive. PST11 back pumping but Tank still odorous."

**Actions:** No data.

**PM** – Cold – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM8 0.024ppm <15 minute duration."

**Operational Issues/Causes:** None noted.

**Actions:** No data.

## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
31/03/21	0	389	1575	1964	2722	4686
02/04/21	0	1696	1865	3561	2602	6163
05/04/21	0	1134	2010	3144	3418	6562

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

## Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** - In use – seal level approx. 6ft below coping stones - seal weak and bubbling.

**Digester 6** – Out of use.

**Digester 7** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 8** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling.

**Digester 9** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 10** - In use – seal level approx. 5ft below coping stones - seal weak and bubbling.

**Digester 11** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 12** - In use – seal level approx. 6ft below coping stones - seal weak and bubbling.

**Digester 13** - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 14.** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

**Digester 15** – Out of use.

**Digester 16** - In use – seal level approx. 4ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up – Bell height high requiring draw down of Biogas.

**Digester 17** - In use – seal level approx. 5ft below coping stones – seal weak and bubbling.

**Digester 18** – Out of use.

**Digester 19** – Out of use.

**Digester 20** - In use – seal level approx. 7ft below coping stones – seal weak and bubbling.

**GENERAL**

**Sludge Screening House**

Doors open at the time of inspection – contractors on site working on screens.

**Imported Sludge**

No imports daily for preceding seven days.

**Final Settlement Tanks East Side of Works**

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

**Skips**

1x large open grit skip (empty), 1x 8 yard grit/rag skip (covered with tarpaulin) & 1x 8 yard general waste in Service Road at rear of Sludge Screen House.

**East Side Raw Sludge Screen House**

Doors closed at time of inspection.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

**West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

**Pasteurisation Plant**

Eight streams running.

**New Works (West Side)**

Feed Channel for Aeration Lanes 100% obstructed – requires jetting.  
Large thick crust evident across majority of tank.

**Odour Control Unit (OCU) performance monitoring – 06/04/21**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	51.61 53.78 49.10	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	1.198 1.187 1.156	0.6	No
Transfer PS inlet	1.118 1.113 1.114	Unknown	Unknown



Transfer PS outlet	0.00 0.00 0.00	0.5	Yes
New West inlet (OCU11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation Plant (OCU12)	0.801 0.671 0.511	0.5	No



**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** Tuesday 23<sup>rd</sup> March 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Tom Costin (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A** - Tank was clean and empty - All hoppers were over ½ full of effluent and needed draining down.

**Tank 1B** - Tank was clear of effluent however had a slight sludgy surface toward the river end of the tank. All three hoppers were full to the top and needed draining down.

**Tank 2A** - was mostly clean however a gritty surface at the hopper end. Hopper 1 was low, however hopper 2 and 3 needed draining down.

**Tank 2B** - was mostly clean however to the left of the tank portion of the tank there was a layer of thick sludgy effluent and some gritty areas - All the hoppers were full and needed draining down.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Tank 3A** - The tank had a layer of thick sludgy effluent all the way across to the river end. All hoppers were full and needed draining down.

**Tank 3B** - This tank had a thick layer of sludge more toward the hopper end. Hoppers 1 & 2 were empty, however hopper 3 needed draining down.

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

**Tank 6A** – The tank was clean throughout, however hoppers 1, 2 & 3 needed draining down.

**Tank 6B**- Tank had a black effluent at hopper end – All hoppers were full and needed draining down. There was a thin layer across the surface of fatty deposits.

**Tank 7A** - The tank was full of black effluent at the hopper end. All the hoppers needed draining down. The hoppers were overflowing with effluent.

**Tank 7B**- The Tank was clear, however Hoppers 1, 2 & 3 needed draining down. The effluent from the hoppers was overflowing.

**Tank 8A and Tank 8B** - were both full of effluent at the hopper end but thinned out across the tank. The surface was clear of fatty deposits and sludge. Hoppers in both tanks were overflowing and needed attention. This is partly due to the cracks in walls which have been a problem with these Tanks.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and murky and black in colour with some fatty deposits floating along the surface.

There were no observation of malodour at this locality of the works. Thames Water had been advised to take action to clean the tanks and drain down the hoppers.

### **Complaints**

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

The Council directly received 1 complaint by email in the preceding week (18/03/2021 ref A12562). No exact date and time of the odour incident was received. In response a letter was sent to the complainant encouraging to use the 24/7 telephone reporting service.

The Council directly received 2 complaints via online reporting system in the preceding week. Both complaints were received after the time of the incident. A letter was sent to both complainants encouraging them to use the telephone service. Both complaints were actioned on the 21/03/2021 under ref A12595 / A12596

The Council received no complaints by email from MRAG.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 23/03/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:05p m
Monitor 2	0.000	ppm	13:05p m
Monitor 3	0.000	ppm	13:05p m
Monitor 4	0.000	ppm	13:05p m
Monitor 5	0.004	ppm	13:05p m
Monitor 6	0.000	ppm	13:05p m
Monitor 7	0.000	ppm	13:05p m
Monitor 8	0.004	ppm	13:05p m
Monitor 9	0.004	ppm	13:05p m
Monitor 10	0.000	ppm	13:05p m
Monitor 11	0.000	ppm	13:05p m
Monitor 12	0.000	ppm	13:05p m
Monitor 13	0.000	ppm	13:05p m
Wind Speed	4.163	mph	13:05p m
Wind Direction	238.090		13:05p m

**Odour Log (Thames)**

**Wednesday 17<sup>th</sup> March 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy with sunny spells

**Odour Readings** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold

**Weather.** Clear night .

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**Thursday 18<sup>th</sup> March 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny with patchy clouds

**Odour Readings.** All Odour monitors are in operation / No Faults.

**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 Odour monitors are in operation / No Faults.

**Time:** 05:30.

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

**Operational issues / causes observed.** Blank.

**Friday 19<sup>th</sup> March 2021**

**DAY SHIFT**

**Temp.** Warm

**Weather.** Sunny with patchy clouds .

**Odour Readings.** All Odour monitors are in operation / No Faults.

**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 Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues

**Operational issues / causes observed.** Blank.

**Saturday 20<sup>th</sup> March 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy with sunny spells.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank

**Sunday 21<sup>st</sup> March 2021**

**DAY SHIFT**

**Temp.** Warm

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues

**Operational issues / causes observed.** East OCU only 1/3 fans available

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear Night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM9 spiked to 0.016ppm between 01:45-02:00

**Operational issues / causes observed.** PAS Stream 7 reactor draining for overhaul

**Monday 22<sup>nd</sup> March 2021**

**DAY SHIFT**

**Temp.** Warm.

**Weather.** Sunny with patchy clouds

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 00:00.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM9 spiked to 0.016ppm between 19:18-19:33



**Operational issues / causes observed.** Digester bell height high-burner on to drop bell.

**Tuesday 23<sup>rd</sup> March 2021**

**DAY SHIFT**

**Temp.** Warm

**Weather.** Cloudy with sunny spells.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM5 spiked to 0.016 at 10:45 -11:00.

**Operational issues / causes observed.**

No odours found

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear Nights.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM5 spiked to 0.018 at 19:29 - 19:45.

OM5 spiked to 0.015 at 19:00 - 19:14

**Operational issues / causes observed.**

Odour from sewer on main drive.

### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
17/03/2021	0	1841	1218	3059	4541	7600
19/03/2021	0	1012	1823	2835	3539	6374
22/03/2021	0	1097	1678	2775	4724	7499

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

An average of 0 import of sludge per day. No imports made this week.

### No.5 Pumping Station

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

### Sludge Import Area

As LBH note, this has not been required in the last week.

The sludge import area was clean & tidy. No odours detected at time of inspection. TW 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 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 thick seal that was approx. 2ft below the coping stones. No evidence of previous spillages.

**Digester 6** was out of service.

**Digester 7** was in service and had a low wet seal that was bubbling off minimal amounts of gas. There were signs of previous spillage. Level of seal was approx. 3ft below coping stones.

**Digester 8** was in service and had a very wet low seal that was bubbling off minimal amounts of gas. The seal was 3ft below the coping stone. No signs of previous spillages.

**Digester 9** was in service and had a very high wet seal that was 1ft below the coping stones.

**Digesters 10 & 11** were both in service and both had very wet seals that were bubbling off minimal amounts of gas. It was also

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

noted that the sludge level of both digesters was very high, approx. a few inches below coping stone and in some places at the same level as the coping stones.

**Digester 12** was in service and had a very wet seal that was bubbling off minimal amounts of gas. The sludge level was approx. 4ft below the coping stone.

**Digester 13** was in service and had a very thick sludgy seal that was at the same level as the coping stone.

**Digester 14** was in service and had a thin wet seal approx. 2ft below coping stones. There were signs of previous spillage.

**Digester 15** was out of service.

**Digester 16** was in service and had a good thick seal. There were signs of previous spillage. Level of sludge was high approx. 2ft below coping stone in some places higher.

**Digester 17** was in service and had a wet seal that was approx. 4ft below coping stones.

**Digesters 18 & 19** were both out of service.

**Digester 20** was in service and had a wet watery seal that was bubbling off minimal amounts of gas approx. 4 ft. below coping stones.

The walkways around Digesters 5- 10 had dried gritty surfaces possibly from previous spillages that needed to be cleaned and maintained. TW advised

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).

All tanks/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits. The arms with hoses connected were rotating and clearing the fatty deposits.

### **Skips**

On the East side (Grit house) there were 2 x 16yard skips. One of the skips contained inert material unlikely to rot or cause an odour (No cover). The second skip was empty. There was also 1 large red BIFFA 20yard skip for rag which was empty at the time of visit.

No other skips on site.

### **East Side Screen House**

All the doors and roller shutter were closed at time of visit.

### **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 road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of

Skips containing rag and grit are routinely covered.  
General waste and empty skips which are not odorous may be uncovered.

weeds were growing out of it. No change along the length of this channel.

### **West side primary settlement tanks (PST)**

Rectangular PSTs are now covered and odour controlled. TW advised no concerns or issues. No noticeable odours at time of inspection.

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

Circular PST 12 has been drained down and is currently out of service.

### **Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 7 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 appeared to be free flowing with the internal dividing walls being slightly visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks and sanitary towels).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 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.

**Odour Control Unit (OCU) performance monitoring: 23<sup>rd</sup> March 2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No Data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.06 0.05 0.05 0.05	0.05	YES
West inlet OCU	0.01 0.01 0.01	0.05	YES
Sludge reception inlet	No Data	Unknown	Unknown
Thickening plant outlet	7.81 7.92	0.8	Unknown

	5.71		
Thickening plant inlet	No Data	Unknown	Unknown
Thickening plant outlet	7.81 7.92 5.17	0.6	NO
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	YES
Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	YES
GBT Plant OCU Outlet	0.00 0.00 0.00		





**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** Tuesday 23<sup>rd</sup> February 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Dan Grady (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A-** Tank was clean and empty- All hoppers had been drained down to the bottom

**Tank 1B-** Tank was clear of effluent however had a slight sludgy surface toward the river end of the tank. All three hoppers were full to the top and needed draining down.

**Tank 2A –** was over 20% full of effluent and was being returned. The amajets were in operation. There were thick deposits of fat on the surface at the hopper end.

**Tank 2B-** was mostly clean however to the left of the tank portion of the tank there was a layer of thick sludgy effluent – All the hoppers were full and also needed draining down.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Tank 3A-** The tank was clear of effluent however had a thick sludgy surface right across the tank. Hopper 1 was full to the top and needed draining down. Hoppers 2 and 3 were ¼ full.

**Tank 3B-** This tank was 20% full of effluent and rapidly filling up – overflow from covered tanks. The amajets were in operation.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and murky and black in colour. No fatty deposits observed

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

**Tank 6A and Tank 6B** – Both tanks were approx. over 20% full of effluent. Amajets were not in operation at time of inspection. There were fatty deposits floating on the surface.

**Tank 7A and 7B** - The tanks were both empty of effluent but had thick sludgy layers at the hopper end. All the hoppers were full to the top of effluent.

**Tank 8A and Tank 8B-** were both full of effluent at the hopper end but thinned out across the tank. The surface was clear of fatty deposits and sludge.

**Storm Feed Channel** - The level of effluent in the feed channels was approx. 10% in depth along its entire length and murky and black in colour with some fatty deposits floating on surface.

There were no observation of malodour at this locality of the works.

## **Complaints**

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

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

The Council received no complaints by email from MRAG.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 23/02/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:05p m
Monitor 2	0.008	ppm	13:05p m
Monitor 3	0.000	ppm	13:05p m
Monitor 4	0.004	ppm	13:05p m
Monitor 5	0.005	ppm	13:05p m
Monitor 6	0.004	ppm	13:05p m
Monitor 7	0.000	ppm	13:05p m
Monitor 8	0.005	ppm	13:05p m
Monitor 9	0.005	ppm	13:05p m
Monitor 10	0.004	ppm	13:05p m

Monitor 11	0.000	ppm	13:05p m
Monitor 12	0.000	ppm	13:05p m
Monitor 13	0.000	ppm	13:05p m
Wind Speed	11.044	mph	13:05p m
Wind Direction	199.535		13:05p m

**Odour Log (Thames)**

**Wednesday 17<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour spikes/odour complaints.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear night .

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**Thursday 18<sup>th</sup> February 2021****DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** ABLE on site carrying out calibration on monitors .

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear Night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 07:12.

**Observations / Customer Complaint.**

OM6 spiked to 0.025ppm at 00:33-01:32

**Operational issues / causes observed.** Blank.

**Friday 19<sup>th</sup> February 2021****DAY SHIFT**

**Temp.** Cool

**Weather.** Cloudy.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**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 Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues/Spikes or complaints .

**Operational issues / causes observed.** Blank.

**Saturday 20<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny with Patchy clouds.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool

**Weather.** Overcast night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.** No odours spikes or complaints

**Operational issues / causes observed.**

**Sunday 21<sup>st</sup> February 2021**

**DAY SHIFT**

**Temp.** Cool

**Weather.** Sunny with patchy clouds.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM5 spiked to 0.022ppm 17:13-17:28

**Operational issues / causes observed.**

No odours detected

### **NIGHT SHIFT**

**Temp.** Cool

**Weather.** Overcast Night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour spikes or complaints

**Operational issues / causes observed.** Blank.

### **Monday 22<sup>nd</sup> February 2021**

#### **DAY SHIFT**

**Temp.** Warm

**Weather.** Rain with sunny spells.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.022ppm at 05:51-07:04.

**Operational issues / causes observed.** Storm tanks need cleaning.

#### **NIGHT SHIFT**

**Temp.** Cool

**Weather.** Clear nights.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:00.

**Observations / Customer Complaint.**

No odour issues found or reported

**Operational issues / causes observed.**

**Tuesday 23<sup>rd</sup> February 2021**

**DAY SHIFT**

**Temp.** Cool .

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.016 at 11:36-11:50

**Operational issues / causes observed.**

Storm tank cleaning underway

**NIGHT SHIFT**

**Temp.** Cool.

**Weather.** Clear Nights.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.021 at 22:36-22:35

**Operational issues / causes observed.**

Storm tanks emptying via diesel over pump.



## Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
17/02/2021	0	1635	1030	2665	912	3577
19/02/2021	78	1968	2343	4389	7916	12305
22/02/2021	0	1199	2905	4104	8930	13034

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 1 import of sludge per day. Deliveries made on the 17<sup>th</sup>, 19<sup>th</sup> and 22<sup>nd</sup> February 2021.

## No.5 Pumping Station

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

## Sludge Import Area

The sludge import area was clean & tidy. No odours detected at time of inspection. TW advised they are frequently hosing this area down.

As LBH note, this has not been required in the last week.

## Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of 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 thick seal that was approx. 3ft below the coping stones.

**Digester 6** was out of service.

**Digester 7** was in service and had a low wet seal that was bubbling off minimal amounts of gas. There were signs of previous spillage. Level of seal was approx. 3ft below coping stones.

**Digester 8** was in service and had a very wet low seal that was bubbling off minimal amounts of gas. The seal was 3ft below the coping stone.

**Digester 9** was in service and had a very high wet seal that was 1ft below the coping stones.

**Digesters 10 & 11** were both in service and both had very wet seals that were bubbling off minimal amounts of gas. It was also noted that the sludge level of both digesters was very high, approx. a few inches below coping stone and in some places at the same level as the coping stones.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 12** was in service and had a very wet seal that was bubbling off minimal amounts of gas. The sludge level was approx. 3ft below the coping stone.

**Digester 13** was in service and had a very thick sludgy seal that was at the same level as the coping stone. .

**Digester 14** was in service and had a thin wet seal approx. 1ft below coping stones. There were signs of previous spillage.

**Digester 15** was out of service.

**Digester 16** was in service and had a good thick seal. There were signs of previous spillage. Level of effluent was high approx. 2ft below coping stone in some places higher.

**Digester 17** was in service and had a wet seal that was approx. 2ft below coping stones.

**Digesters 18 & 19** were both out of service.

**Digester 20** was in service and had a wet watery seal that was bubbling off minimal amounts of gas approx. 3 ft. below coping stones.

The walkways around Digesters 5- 10 had dried gritty surfaces possibly from previous spillages that needed to be cleaned and maintained. TW advised

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).

All tanks/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of fatty/mossy deposits.

### **Skips**

On the East side (Grit house) there were 2 x 16yard skips. One of the skips contained inert material - unlikely to rot or cause an odour (No cover). The second skip was empty. There were also 2 large red BIFFA 20yard skips which were empty.

At the West side Grit house there was one 20yard skip which was empty at the time of inspection.

No other skips on site.

### **East Side Screen House**

The middle set of blue screen house doors were open at the time of the inspection no contractors working at site at time of inspection. Advised TW these doors must remain closed.

Skips containing rag and grit are routinely covered.  
General waste and empty skips which are not odorous may be uncovered.

### **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 road was clogged along approx. 80% 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 concerns or issues. No noticeable odours at time of inspection.

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

Circular PST 12 has been drained down and 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 appeared to be free flowing with the internal dividing walls being visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 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.

**Odour Control Unit (OCU) performance monitoring: 23<sup>rd</sup> February 2021- NO CHECKS COMPLETED DUE TO STAFF SHORTAGE**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
-------	---------------	--------------------	-----------

Main pumping station inlet	NO DATA	Unknown	Unknown
Main pumping station outlet	NO DATA	0.2	Unknown
East OCU	NO DATA	0.05	Yes
West inlet OCU	NO DATA	0.05	Yes
Sludge reception inlet	NO DATA	Unknown	Unknown
Sludge reception outlet	NO DATA	0.8	Unknown
Thickening plant inlet	NO DATA	Unknown	Unknown
Thickening plant outlet	NO DATA	0.6	Yes
New West inlet (OCU 11)	NO DATA	0.5	No
Pasteurisation (OCU 12)	NO DATA	0.5	Yes
Transfer PS inlet	NO DATA	Unknown	Unknown
Transfer PS outlet	NO DATA	0.6	Yes



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Wednesday 17 <sup>th</sup> February 2021 (13:00pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was approx. 25% full and being returned. All Amajets were in operation.</p> <p><b>Tank 1B</b> was approx. 25% full and being returned. All Amajets were in operation.</p> <p><b>Tank 2A</b> was approx. 40% full. No Amajets were in operation.</p> <p><b>Tank 2B</b> was approx. 40% full. No Amajets were in operation.</p> <p><b>Tank 3A</b> was approx. 40% full. No Amajets were in operation.</p> <p><b>Tank 3B</b> was approx. 40% full and being returned. All Amajets were in operation.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>



**Tank 6A** was approx. 50% full.

No Amajets were in operation. TW advised of electrical fault on these Amajets.

60% of the effluents surface was covered with a layer of fatty scum on the left side and top end of the tank that was spilling into tank 6B.

**Tank 6B** was approx. 50% full.

No Amajets were in operation. TW advised of electrical fault on these Amajets.

15% of the effluents surface was covered with a layer of fatty scum at the top end of the tank (flowing through from tank 6A).

**Tank 7A** was approx. 50% full.

No Amajets were in operation.

**Tank 7B** was approx. 50% full.

No Amajets were in operation.

**Tank 8A** had just been returned and was virtually empty. Tank required further flushing due to sludge deposits being left on the empty tanks surface.

**Tank 8B** had just been returned and was virtually empty. Tank required further flushing due to sludge deposits being left on the empty tanks surface.

**Storm Feed Channel** - The level of effluent in both feed channels was approx. 25% along their entire lengths.

### **Complaints**

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

The Council directly received no complaints by either email or the on-line web system in the preceding week.

The Council received no complaints by email from MRAG.

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 17/02/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:35pm
Monitor 2	0.004	ppm	13:35pm
Monitor 3	0.000	ppm	13:35pm
Monitor 4	0.000	ppm	13:35pm
Monitor 5	0.008	ppm	13:35pm
Monitor 6	0.004	ppm	13:35pm
Monitor 7	0.000	ppm	13:35pm
Monitor 8	0.006	ppm	13:35pm
Monitor 9	0.000	ppm	13:35pm
Monitor 10	0.000	ppm	13:35pm
Monitor 11	0.000	ppm	13:35pm
Monitor 12	0.000	ppm	13:35pm
Monitor 13	0.000	ppm	13:35pm
Wind Speed	5.515	mph	13:35pm
Wind Direction	184.689		13:35pm

**Odour Log (Thames)**

**Wednesday 10<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Cold.

**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.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM5 0.025ppm 17:59-18:11.

**Operational issues / causes observed.** No odour source found.

**Thursday 11<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 1 spike from OM5 to 0.016 for less than 15 mins.

**Operational issues / causes observed.** Storm tanks returning.

**NIGHT SHIFT**

**Temp.** Freezing.

**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.

**Friday 12<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Freezing.

**Weather.** Sunny w/patchy clouds.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Overcast night.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Storm tanks returning.

**Saturday 13<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Freezing.

**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.** Storm tanks returning.

**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.

**Sunday 14<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Cloudy.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM5 – 3 spikes at 0.015 for less than 15 mins.

**Operational issues / causes observed.** Storm tanks filling.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Monday 15<sup>th</sup> February 2021**

**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.** 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.

**Tuesday 16<sup>th</sup> February 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Rain w/sunny spells.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour spikes or complaints.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Blank.

**Weather.** Blank.

**Odour Readings.** All OMU's in operation.

**Time:** Blank.

**Observations / Customer Complaint.** Blank.

**Operational issues / causes observed.** Blank.

### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
10/02/2021	0	1574	885	2459	1240	3699
12/02/2021	0	1823	2344	4167	1929	6096
15/02/2021	0	1593	2530	4123	6254	10377

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 7 imports of sludge per day.

### 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.

TW were advised they are frequently hosing this area down.

### Raw Sludge Screening House

As LBH note, this has not been required in the last week.

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 very wet seal (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal level was low.

**Digester 6** was out of service but appeared to have a good dry seal ?

**Digesters 7 and 8** were both in service and had very wet seals (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal levels was low. Digester 8 had a high bell height.

**Digesters 9 and 10** were both in service and had very wet seals (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal levels was low although both bell heights were high.

**Digesters 11 and 12** were both in service and had very wet seals (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal levels was low.

**Digesters 13 and 14** were both in service and had very wet seals (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal levels was low.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal (virtually no seal), that was bubbling off gas. It was noted that the digester seal level was

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

low.

**Digester 17** was in service and had a good dry seal. It was noted that the digester seal level was low.

**Digesters 18 and 19** were both out of service.

**Digester 20** was in service and had a very wet seal (virtually no seal) that bubbling off minimal amounts of gas. It was noted that the digester seal level was low.

Although there was evidence of anti-foaming agent in use, which TW advised was being applied daily to all operational digesters, there is currently a serious issue with the automatic anti-foam pumps.

Thames advised this is being partly addressed by manually dosing the 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 other than surface scum covering approx. 30% of tank 75, no other issues were evident.

### **Skips**

On the East side there two 14yds open skips. One was empty and one contained a large circular steel plate.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was approx. 80% full of grit.

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 first set of screen house doors were open at the time of the inspection. 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 approx. 50% 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'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. It was noted that the area in the middle of the tank contained a large quantity of solid fat, alae 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 along at least 50% of its length (noticeably between lanes 24-25) and floating debris was present in other areas (lane 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 10 is currently being replaced.

### **Odour Control Unit (OCU) performance monitoring: 15/02/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00	0.2	Unknown

	0.00 0.00		
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	0.098 0.092 0.087	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	0.105 0.101 0.097	Unknown	Unknown
Transfer PS outlet	0.00 0.02 0.01	0.6	Yes



## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Tuesday 2 <sup>nd</sup> February 2021 (12:40pm)	
<b>Attendees:</b> Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
<b>LB Hounslow Observation</b>	<b>Thames Water Action / Response</b>
<p><b><u>Storm Water Storage Tanks (SWST)</u></b></p> <p><b>Tank 1A</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 1B</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 2A</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 2B</b> was completely full. No Amajets were in operation.</p> <p><b>Tank 3A</b> was completely full and returning. Amajets 1 and 2 were in operation.</p> <p><b>Tank 3B</b> was completely full and returning. All Amajets were in operation.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

**Tank 6A** was completely full.  
No Amajets were in operation.

**Tank 6B** was completely full.  
No Amajets were in operation.

**Tank 7A** was completely full.  
All Amajets were in operation.

**Tank 7B** was completely full.  
No Amajets were in operation.

**Tank 8A** was completely full.  
No Amajets were in operation.

**Tank 8B** was completely full.  
No Amajets were in operation.

**Storm Feed Channel** - The level of effluent in both feed channels was high along both entire length.

### **Complaints**

The Council received 4 complaints in the preceding week, two of which were from non Hounslow residents.

On 17/01/2021 a complaint was received Email from a resident of Lynton Close, Isleworth, logged under our reference A10327. The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H2S readings.

On 24/01/2021 a complaint was received via the Councils on-line web system from a resident of Strafford Road, Twickenham, logged under our reference A10170. This resident does not reside within the London Borough of Hounslow and therefore does not receive our on-call service.

On 28/01/2021 a complaint was received via the Councils on-line web system from a resident of Worple Road, Isleworth, logged under our reference A10369.

The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H<sub>2</sub>S readings. However, it was noted that OM8 was periodically flat-lining.

On 01/02/2021 a complaint was received via the Councils on-line web system from a resident of South Western Road, Twickenham, logged under our reference A10467. This resident does not reside within the London Borough of Hounslow and therefore does not receive our on-call service.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 02/02/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	12:40pm
Monitor 2	0.000	ppm	12:40pm
Monitor 3	0.000	ppm	12:40pm
Monitor 4	0.000	ppm	12:40pm
Monitor 5	0.005	ppm	12:40pm
Monitor 6	0.000	ppm	12:40pm
Monitor 7	0.005	ppm	12:40pm
Monitor 8	0.000	ppm	12:40pm
Monitor 9	0.000	ppm	12:40pm
Monitor 10	0.000	ppm	12:40pm
Monitor 11	0.000	ppm	12:40pm
Monitor 12	0.000	ppm	12:40pm
Monitor 13	0.000	ppm	12:40pm
Wind Speed	2.716	mph	12:40pm
Wind Direction	221.554		12:40pm

**Odour Log (Thames)**

**Wednesday 27<sup>th</sup> January 2021**

**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.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** OM6 max 0.097ppm 21:14-23:49.

**Operational issues / causes observed.** Storm tanks full weiring to river.

**Thursday 28<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour problems.

**Operational issues / causes observed.** Blank.

**Friday 29<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**Weather.** Rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 17:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.  
**NIGHT SHIFT**  
**Temp.** Cold.  
**Weather.** Rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour problems.  
**Operational issues / causes observed.** Blank.

**Saturday 30<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**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.** Freezing.  
**Weather.** Clear night.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.

**Sunday 31<sup>st</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**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. 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.

**Monday 1<sup>st</sup> February 2021****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.

**Tuesday 2<sup>nd</sup> February 2021****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. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

<b>Operational issues / causes observed. Blank.</b>	
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### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
27/01/2021	0	867	1218	2115	912	3027
29/01/2021	0	679	885	1564	912	2476
01/02/2021	0	1368	679	2047	912	2959

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 4 imports of sludge per day.

### 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.

TW were advised they are frequently hosing this area down.

### Raw Sludge Screening House

As LBH note, this has not been required in the last week.

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 suffered a large spill that required cleaning as a matter of urgency.

**Digester 6** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low (approx. 36" below top of coping stone).

**Digester 7** was in service and had suffered a large sludge spill that required cleaning as a matter of urgency.

**Digester 8** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal.

**Digester 9** was in service and had suffered a large sludge spill that required cleaning as a matter of urgency.

**Digester 10** was in service but due to large sludge spill was inaccessible.

**Digesters 11 and 12** were both in service and suffering large sludge spills at the time of the inspection.

**Digester 13** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal.

**Digester 14** was in service and suffering large sludge spill at the time of the inspection.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

**Digester 15** was out of service.

**Digester 16** was in service and suffering large sludge spill at the time of the inspection.

**Digester 17** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal.

**Digesters 18 and 19** were both out of service.

**Digester 20** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal.

Although there was evidence of anti-foaming agent in use, which TW advised was being applied daily to all operational digesters, there is currently a serious issue with the automatic anti-foam pumps.

Thames advised this is being partly addressed by manually dosing the digesters. However, during the inspection a number of digesters were uncontrollably spilling sludge, which Thames were advised required immediate attention.

## **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 no issues were evident.

### **Skips**

On the East side there two 14yds open skips. One was empty and one contained a large circular steel plate.

Also present 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 far set of screen house doors were open at the time of the inspection.

There is currently ongoing maintenance taking place in this area of the site with screen machinery being replaced.

### **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 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 9 had large floating patches of fat, scum and floating solids, the sweeper arm did not appear to be operational; Odour was also noticeably present.

Circular PST 10 had two areas of floating fat and scum across the tanks surface.

Circular PST 11 had two areas of floating fat and scum across the

tanks surface.

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

### **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**

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 although the dividing walls were still 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 along at least 70% of its length (noticeably between lanes 24-25) and floating debris was present in other areas.

### **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 10 is currently being replaced.

**Odour Control Unit (OCU) performance monitoring: 02/02/2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 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	0.71 0.68 0.59	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	1.178 1.172 1.167	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes





**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection:** Tuesday 26<sup>th</sup> January 2021 (13:00pm)

**Attendees:** Mr Zaheer Kadri (London Borough of Hounslow) and Mr Dan Grady (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A – Tank 3B** were all approx. over 50% full. Tank 2A - 3B all Amajets 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 – Tank 6B** were both approx. 50% full and returning. Amajets were not in operation at time of inspection.

**Tank 7A – Tank 8B** were all approx. 50% full. All Amajets were in operation.

**Storm Feed Channel** - The level of effluent in both feed channels was approx. 40-50% along its entire length and murky and black in colour. No fatty deposits observed.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning

### **Complaints**

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

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

The Council received no complaints by email from MRAG.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 26/01/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:10p m
Monitor 2	0.000	ppm	13:10p m
Monitor 3	0.000	ppm	13:10p m
Monitor 4	0.005	ppm	13:10p m
Monitor 5	0.005	ppm	13:10p m
Monitor 6	0.000	ppm	13:10p m
Monitor 7	0.000	ppm	13:10p m
Monitor 8	0.007	ppm	13:10p m
Monitor 9	0.004	ppm	13:10p m

Monitor 10	0.000	ppm	13:10p m
Monitor 11	0.000	ppm	13:10p m
Monitor 12	0.003	ppm	13:10p m
Monitor 13	0.000	ppm	13:10p m
Wind Speed	4.989	mph	13:10p m
Wind Direction	183.544		13:10p m

**Odour Log (Thames)**

**Wednesday 20<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Rain with sunny spells.

**Odour Readings** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cool.  
**Weather.** Rain.  
**Odour Readings.** All Odour monitors are in operation / No Faults.  
**Time:** 05:30.  
**Observations / Customer Complaint.**  
No odour issues found or reported.  
**Operational issues / causes observed.** Blank.

**Thursday 21<sup>st</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**Weather.** Sunny.  
**Odour Readings.** All Odour monitors are in operation / No Faults.  
**Time:** 17:30.  
**Observations / Customer Complaint.**  
No odour issues found or reported.  
**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold.  
**Weather.** Clear night.  
**Odour Readings.** All Odour monitors are in operation / No Faults.  
**Time:** 05:30.  
**Observations / Customer Complaint.**  
No odour issues found or reported.  
**Operational issues / causes observed.** Blank.

**Friday 22<sup>nd</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**Weather.** sunny.  
**Odour Readings.** All Odour monitors are in operation / No Faults.  
**Time:** 17:30.  
**Observations / Customer Complaint.**  
No odour issues found or reported.  
**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Saturday 23<sup>rd</sup> January 2021****DAY SHIFT**

**Temp.** Cool.

**Weather.** Cloudy.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour issues found or reported.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

OM2 spiked to 0.015ppm at 20:31-21:28.

**Operational issues / causes observed.**

Area checked some odour from PAS.

**Sunday 24<sup>th</sup> January 2021****DAY SHIFT**

**Temp.** Cold.

**Weather.** Storms.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.**

No odour spikes or complaints.

**Operational issues / causes observed.**

Sludge on top of Storm water tanks no6.

**NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Clear night.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:30.

**Observations / Customer Complaint.**

No odour issues.

**Operational issues / causes observed.** Blank.

**Monday 25<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Freezing.

**Weather.** Sunny.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Freezing.

**Weather.** Clear nights.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 05:00.

**Observations / Customer Complaint.**

OM 5 spiked to 0.020ppm 20:40-20:55.

**Operational issues / causes observed.**

Area checked No source found.

**Tuesday 26<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Freezing.

**Weather.** Rain with sunny spells.

**Odour Readings.** All Odour monitors are in operation / No Faults.

**Time:** 17:30.

**Observations / Customer Complaint.** No odour problems.  
**Operational issues / causes observed.**  
**NIGHT SHIFT**  
**Temp.** Cool.  
**Weather.** Rain.  
**Odour Readings.** All Odour monitors are in operation / No Faults.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour problems.  
**Operational issues / causes observed.** No odour problems.

### **Sludge Dip Records**

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	<b>All units in m<sup>3</sup></b>					
OMP limit	<b>500</b>					
22/01/2021	0	867	1406	2273	912	3185
25/01/2021	0	867	1073	1940	1240	3180

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 13 imports of sludge per day. Deliveries made on the 22<sup>nd</sup> and 25<sup>th</sup> January 2021.

### **No.5 Pumping Station**

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

### **Sludge Import Area**

As LBH note, this has not been required in the last week.



It was noted that the condition around the sludge import area has noticeably improved and clean & tidy. No odours detected at time of inspection

TW 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 thick seal that were approx. 3ft below coping stones.

**Digester 6** was out of service.

**Digester 7** was in service and had a low wet seal that was bubbling off minimal amounts of gas. There was signs of previous spillage.

**Digester 8** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 9** was in service and had a very wet seal that was 3ft below the coping stones.

**Digesters 10 & 11** were both in service and all had very wet seals that were bubbling off minimal amounts of gas.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.  
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

It was also noted that the sludge level of both digesters was very high, approx. 1ft below coping stone and in some places at the same level as the coping stones.

**Digester 12** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

It was also noted that the sludge level was high, approx. same level as coping stones.

**Digester 13** was in service and had a very wet seal that was bubbling off minimal amounts of gas.

**Digester 14** was in service and had a thick sludgy seal approx. 2ft below coping stones. There were signs of previous spillage. .

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal. There were signs of previous spillage. Level of effluent was high approx. 1ft below coping stone

**Digester 17** was in service and had a thick seal that was approx. 2ft below coping stones.

**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 approx. 2 ft. below coping stones.

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).

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

### **Skips**

On the East side (Grit house) there was one 16 yds. Skip with inert material / Uncovered.

No other skips on site.

West side Grit house had 2 large BIFFA containers which were enclosed.

### **East Side Screen House**

The middle set of screen house doors were open at the time of the inspection no contractors working at site at time of inspection. Advised that these doors must remain closed.

### **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 road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

Skips containing rag and grit are routinely covered.  
General waste and empty skips which are not odorous  
may be uncovered.

### **West side primary settlement tanks (PST)**

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

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

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 appeared to be free flowing with the internal dividing walls being visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 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.

**Odour Control Unit (OCU) performance monitoring: 26<sup>th</sup> January 2021**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 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	1.24 1.20 1.18 Ave: 1.21	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00	0.5	Yes

	0.00 0.00			
Transfer PS inlet	27.88 27.01 27.21 Ave: 27.31	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 19<sup>th</sup> January 2021 (12:30pm)

**Attendees:** Mr I Inman (London Borough of Hounslow) and Mr D Grady (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was full and returning.  
All Amajets were in operation.

**Tank 1B** was full and returning.  
All Amajets were in operation.

**Tank 2A** was full and returning.  
All Amajets were in operation.

**Tank 2B** was full and returning.  
All Amajets were in operation.

**Tank 3A** was full and returning.  
Amajets 1 and 2 were in operation.

**Tank 3B** was full and returning.  
All Amajets 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.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

**Tank 6A** was full.  
No Amajets were in operation.

**Tank 6B** was full.  
No Amajets were in operation.

**Tank 7A** was full and returning.  
All Amajets were in operation.

**Tank 7B** was full and returning.  
Amajets 2 and 3 were in operation.

**Tank 8A** was full and returning.  
All Amajets were in operation.

**Tank 8B** was full and returning.  
All Amajets were in operation.

**Storm Feed Channel** - The level of effluent in both feed channels was high, approx. 85% along its entire length.

### **Complaints**

The Council received 2 complaints via the on-line web system in the preceding week.

On 12/01/2021 a complaint was received via the Councils on-line web system from a resident of South Western Road, Twickenham, logged under our reference A09617. However, this resident does not reside within the London Borough of Hounslow and does therefore not receive our on-call service.

On 14/01/2021 a complaint was received via the Councils on-line web system from a resident of Whitton Dene, Isleworth, logged under our reference A09774. However, only limited information was provided by the complainant.

The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H2S



readings.

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 19/01/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:01pm
Monitor 2	0.004	ppm	13:01pm
Monitor 3	0.000	ppm	13:01pm
Monitor 4	0.006	ppm	13:01pm
Monitor 5	0.005	ppm	13:01pm
Monitor 6	0.003	ppm	13:01pm
Monitor 7	0.000	ppm	13:01pm
Monitor 8	0.007	ppm	13:01pm
Monitor 9	0.003	ppm	13:01pm
Monitor 10	0.000	ppm	13:01pm
Monitor 11	0.000	ppm	13:01pm
Monitor 12	0.000	ppm	13:01pm
Monitor 13	0.00	ppm	13:01pm
Wind Speed	5.431	mph	13:01pm
Wind Direction	231.094		13:01pm

**Odour Log (Thames)**

**Wednesday 13<sup>th</sup> January 2021**

**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.** Cold.  
**Weather.** Rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank

**Thursday 14<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.  
**Weather.** Rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 17:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.

**NIGHT SHIFT**

**Temp.** Cold.  
**Weather.** Rain.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues.  
**Operational issues / causes observed.** Blank.

**Friday 15<sup>th</sup> January 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.

**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

**Saturday 16<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM5 spiked at 12:55-13:09  
<15 mins duration max 0.016ppm.

**Operational issues / causes observed.** Pasteurisation sludge odour  
on main drive but unable to ascertain source before it had gone.

**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.

**Sunday 17<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cool.

**Weather.** Sunny w/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.

**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.

**Monday 18<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.

**Weather.** Cloudy w/sunny spells.

**Odour Readings.** All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** OM5 0.016 12:55-13:09.

**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.

**Tuesday 19<sup>th</sup> January 2021**

**DAY SHIFT**

**Temp.** Cold.

**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 found or reported.

**Operational issues / causes observed.** Blank.

### Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m <sup>3</sup>					
OMP limit	500					
13/01/2021	39	1199	885	2123	912	3035
18/01/2021	39	867	885	1791	1568	3359

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 12 imports of sludge per day.

### 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 cleaner than on previous visits.

TW were advised they are frequently hosing this area down.

### Raw Sludge Screening House

As LBH note, this has not been required in the last week.

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 very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low.

**Digester 6** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low, but there was evidence of a recent sludge spill that required cleaning.

**Digesters 7, 8, 9, 10, 11, 12 and 13** were all in service and had very wet seals (virtually no seal). Again bubbling off gas was minimal on all digesters. It was also noted that the seal levels were lower than normal.

**Digester 14** was in service and had a very wet seal (virtually no seal), but bubbling off gas was minimal. It was also noted that the seal level was low, but there was evidence of a recent sludge spill that required cleaning.

**Digester 15** was out of service.

**Digester 16** was in service and had a very wet seal that was bubbling off minimal amounts of gas. There was evidence of a recent spill and spitting around the digester.

**Digester 17** was in service and had a very low seal level.

**Digesters 18 and 19** were both out of service.

**Digester 20** was in service and had a very wet seal (virtually no seal),

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

but bubbling off gas was minimal. It was also noted that the seal level was low.

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 that was empty and one open 14yds skip which contained a small amount of rag.

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 empty 40yds closed bulk carrier and one 20yds open bulk carrier that was empty.

### **East Side Screen House**

The first set of screen house doors were partially open at the time of the inspection.

There is currently ongoing maintenance taking place in this area of the site with screen machinery being replaced.

### **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 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 9 had floating fat/scum across 25% of its surface in front of the sweeper arm.

Circular PST 10 had floating fat/scum across 10% of its surface in front of the sweeper arm.

Circular PST 11 had floating solids and fat across the entire tanks surface.

Circular PST 12 is currently 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.

### **D-battery Aeration Lanes (old)**



4 lanes of D19 are currently out of service due to ongoing maintenance work. No issues were evident.

**West Side Aeration Lanes**

All lanes appeared to be having biological issues again and no surface movement was visible. Thick fluffy scum coverers virtually the entire surface area of all lanes although the dividing walls were still 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 along at least 70% of its length, and floating debris was present in places.

**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: 19/01/2021**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 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	0.05	Yes

	0.00		
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	1.18 1.12 1.09	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	26.78 24.47 21.84	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** Tuesday 10<sup>th</sup> August 2021 (13:30pm)

**Attendees:** Mr Z Kadri (London Borough of Hounslow), Ms Catherine (Thames Water) & Roxanne Denny (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 1B** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 2A** was approx. over 60% full and filling.  
Amajets were in operation. No unpleasant odours witnessed.

**Tank 2B** was approx. 60% full and filling.  
No Amajets were in operation. No unpleasant odours witnessed.

**Tank 3A** was approx. 60% full and filling.  
Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**Tank 3B** was approx. 60% full and filling.  
Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**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. 60% full and filling. Amajets 1, 2 and 3 were all in operation. No unpleasant odours witnessed.

**Tank 6B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 7A** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 7B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 8A** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**Tank 8B** was approx. 60% full and filling. No Amajets were in operation. No unpleasant odours witnessed.

**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 8 complaints via the on-line web system and 1 complaint via email in the preceding week.

2 of the complaints received were from outside of the London Borough of Hounslow.

### **Ref: A18962**

Online complaint received on the 4<sup>th</sup> of August 2021 at 10:56 from Silverhall Street, Isleworth. The trends on SKADA did not demonstrate

any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A18968**

Online complaint received on the 4<sup>th</sup> of August 2021 at 11:36 from TW1 1HS which is located outside of the London Borough of Hounslow – No further action taken.

**Ref: A19001**

Online complaint received on the 4<sup>th</sup> of August 2021 at 17:38 from Lion Court", Lion Wharf Road area of Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19002**

Online complaint received on the 4<sup>th</sup> of August 2021 at 17:46 from Swan Street, Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19004**

Online complaint received on the 4<sup>th</sup> of August 2021 at 18:32 from Swan Street, Isleworth. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19006**

Online complaint received on the 4<sup>th</sup> of August 2021 at 19:14 from Lion Court", Lion Wharf Road. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19008**

Online complaint received on the 4<sup>th</sup> of August 2021 at 19:54 from Lion Court", Lion Wharf Road. The trends on SKADA did not demonstrate any unusual spikes or odour behaviour patterns for the time the complaint was received.

**Ref: A19015**

Online complaint received on the 5<sup>th</sup> of August 2021 at 08:17 from TW1 1ET a location outside of London Borough of Hounslow. No further action taken.

**Ref: A19052**

Email complaint received on the 5<sup>th</sup> of August 2021 at 11:06 from the Weavers Close area of Isleworth.

In response to odour complaints received in the evening of the 4<sup>th</sup> of August from residents in 'Lion Wharf Road', 'Swan Road' and 'Weavers Close' Isleworth (Flare records A19001, A19002, A19004, A19006, A19008) a visit was made to the vicinity of Mogden sewage works. A subjective assessment was carried out between 23:10-23:25pm in Lion Wharf Road, Swan Street and Worton Road (by the industrial estate and Royal Oak pub) no odour noticeable other than faint whiffs in Worton Road were observed.

Unable to undertake H2S assessment or ascertain qualitative data due to 'Jerome H2S analyser' away being re-calibrated.

Letters were sent out to all the complainants with an update of action taken by the on call duty officer.

On the 10<sup>th</sup> of August 2021 Thames Water Data (SKADA trends) was inspected and times and dates of the complaints above were checked. There was no indication of spikes or activity that suggested an increase of odour. The odour logs supplied by Thames Water did not mention any reasons for a possible increase in odours. Odour Monitor 3 was the only monitor showing increase to a maximum spike of 0.005ppm. The remaining Odour monitors were below 0.05ppm or 0.00ppm.

### Odour Monitors

The odour readouts (H<sub>2</sub>S) for all monitors that were providing data on 10/08/2021 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	0.000	ppm	14:12pm
Monitor 9	0.000	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	0.208	mph	14:12pm
Wind Direction	226.182		14:12pm

### Odour Log (Thames)

#### Wednesday 4<sup>th</sup> August 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.

**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 5<sup>th</sup> August 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.** Rain with sunny spells.

**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 6<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.

**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.** Cool.



**Weather.** Patchy rain.  
**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 7<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Warm.  
**Weather.** Rain.  
**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.** Overcast Night.  
**Odour Readings.** All OMU's in operation.  
**Time:** 05:30.  
**Observations / Customer Complaint.** No odour issues/spikes.  
**Operational issues / causes observed.** Blank.  
**Actions taken.** Blank.

**Sunday 8<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool.  
**Weather.** Rain.  
**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.** Patchy 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 9<sup>th</sup> August 2021**

**DAY SHIFT**

**Temp.** Cool

**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.** Cool

**Weather.** Rain.

**Odour Readings.** All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** No odour issues.

**Operational issues / causes observed.** Blank.

**Actions Taken.** Blank.

**Tuesday 10<sup>th</sup> August 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:** 05:00.

**Observations / Customer Complaint.** No odour issues.

**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 <sup>3</sup>					
OMP limit	500					
04/08/2021	0	1091	1030	2122	760	2881
06/08/2021	0	946	671	1617	1264	2881
09/08/2021	0	1236	1030	2266	912	3178

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 15 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 was open at the time of the inspection due to ongoing maintenance by onsite contractors. There was HERAS fencing in the yard to the front of House where contractors were seen.

### **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 in some places. The seal was low – No evidence of recent sludge spillages.

**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. 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 low thick sludgy seal. No evidence of previous spillages. Coping stones were tidy.

**Digester 9** was in service and had a high thick sludgy seal (1/2ft from coping stones).

**Digester 10** was in service and had a low thick in some places gritty seal.

**Digester 11** was in service and had a low thick sludgy seal. No signs of previous spillages and coping stones were clean.

**Digester 12** was in service and had a low 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. Noticeably a lot of weeds and foliage growth around the digester.

**Digesters 18 and 19** were both out of service.

**Digester 20** was in service and had a low thick sludgy seal . 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 surfaces 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.

### **Skips**

On the East side there were two 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

There was one 20yds open bulk carrier that contained grit, no tarpaulin cover was in place.

There was one was one 14yds skip adjacent to the Sludge Import area (West of the works) that contained inert material. There was a tarpaulin cover over the skip. There was some amount of water in the skip.

On the West side adjacent to the pumping station there was a 14yds skip filled with some inert material but mainly rain water. There was no cover for this skip.

#### **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 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.

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**

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 at E Battery 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 – A lot better condition than previous visits. Progress has been made with this channel.

### **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: 04/08/2021**



<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.28 0.25 0.24	0.2	Unknown
East OCU	0.26 0.23 0.21	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	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.06 0.03 0.03	0.5	Yes
Transfer PS inlet	0.103 0.097 0.095	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown