



# 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



<p><b>Weather.</b> Clear night. <b>Odour Readings.</b> All OMU's in operation. <b>Time:</b> 05:00. <b>Observations / Customer Complaint.</b> No odour issues. <b>Operational issues / causes observed.</b> Blank. <b>Actions Taken.</b> Blank.</p>	
--	--

### **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