



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> Friday 17 <sup>th</sup> May 2019	
<b>Attendees:</b> Mr L Phillips (London Borough of Hounslow) and Mr C Varsani (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. Slight grit build up at rear of tank near hoppers. All hoppers drained to lowest point.</p> <p><b>Tank 1B</b> was empty and clean. All hoppers were all drained down to lowest point.</p> <p><b>Tank 2A</b> was empty and clean. All hoppers were full and required draining.</p> <p><b>Tank 2B</b> was empty and clean. All hoppers were full and required draining.</p> <p><b>Tank 3A</b> was empty and clean slight grit build up at rear end of tank near hoppers. All hoppers were all drained down to lowest point.</p> <p><b>Tank 3B</b> was empty and clean except for a large area of dry crust at the hopper end of the tank. All hoppers were all drained down to lowest point.</p> <p><b>Tanks 4A, 4B, 5A &amp; 5B</b> which are covered and odour controlled were</p>	

all empty. Unable to gauge condition as lighting system still not working.

**Tank 6A** was in use tank flushing all amajets in operation.

**Tank 6B** was empty and clean. All hoppers drained down to lowest point.

**Tank 7A** was empty and clean. Slight grit build up at the end of tank near the hoppers. All hoppers full and required draining.

**Tank 7B** was empty and clean. Slight grit build up at the end of tank near the hoppers. All hoppers full and required draining.

**Tank 8A** was empty and clean. All hoppers full and required draining.

**Tank 8B** was empty and clean. All hoppers full and required draining

**Feed Channel** - The level of effluent in both feed channels was low along its entire length. However, there was thick scum and sludge on the surface along large sections of the channel.

Overall the storm tank hoppers were much improved and Thames advised that a tanker crew had been employed to clear the hoppers of grit and sludge.

### **Complaints**

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

The Council received no complaints by email.

The Council received no complaints by email from MRAG.

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all of the monitors, which were providing data at time of inspection: Friday 17<sup>th</sup> May 2019 at 09:18.

Monitor 1	0.003	ppm	09:18
Monitor 2	0.008	ppm	09:18
Monitor 3	0.000	ppm	09:18
Monitor 4	0.003	ppm	09:19
Monitor 5	0.006	ppm	09:19
Monitor 6	0.006	ppm	09:19
Monitor 7	0.006	ppm	09:19
Monitor 8	0.007	ppm	10:08
Monitor 9	0.009	ppm	10:08
Monitor 10	0.008	ppm	10:08
Monitor 11	0.006	ppm	10:08
Monitor 12	0.007	ppm	10:08
Monitor 13	0.004	ppm	10:08
Wind Speed	2.899	mph	10:08
Wind Direction	335.597	°	10:08

**Odour Log (Thames) - Photocopies of log entries taken**

**Thursday 9<sup>th</sup> May 2019**

**DAY SHIFT AM**

**Temp:** Warm.

**Weather:** Rain w/ Sunny Spells

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

**Time:** 17:45.

**Observations / Customer Complaint:** OM8 one spike 0.015ppm. Less than 15 minutes.

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

**Actions Taken:** Blank.

**NIGHT SHIFT PM**

**Temp:** Cool.

**Weather:** Rain.

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

**Time:** Blank.

**Observations / Customer Complaint:** OM5 01:27-02:27 0.018ppm.

**Operational issues / causes observed:** Area checked no obvious

odours found.

**Actions Taken:** East inlet area checked. Confirmed screen house doors are closed. No odour identified.

**Operational issues / causes observed:** OM5 0.023ppm 05:08-end of shift.

**Actions Taken:** Blank.

### **Friday 10<sup>th</sup> May 2019**

#### **DAY SHIFT AM**

**Temp:** Warm.

**Weather:** Cloudy w/ Sunny Spells.

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

**Time:** 05:30

**Observations / Customer Complaint:** OM8 0.022ppm 13.22-13.37.

**Operational issues / causes observed:** Area checked. No odour detected.

**Actions Taken:** Blank.

#### **NIGHT SHIFT PM**

**Temp:** Warm

**Weather:** Sunny w/ Patchy Clouds.

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

**Time:** Blank.

**Observations / Customer Complaint:** Blank.

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

**Actions Taken:** Blank.

### **Saturday 11<sup>th</sup> May 2019**

#### **DAY SHIFT AM**

**Temp:** Warm.

**Weather:** Sunny w/ Patchy Clouds.

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

**Time:** Blank.

**Observations / Customer Complaint:** Blank.

**Operational issues / causes observed:** Network upgrade. No data.

**Actions Taken:** Blank.

#### **NIGHT SHIFT PM**

**Temp:** Warm.

**Weather:** Sunny w/ Patchy Clouds

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

**Time:** Blank.

**Observations / Customer Complaint:** Blank.

**Operational issues / causes observed:** Network upgrade. No data.

**Actions taken:** Blank.

**Sunday 12<sup>th</sup> May 2019**

**DAY SHIFT AM**

**Temp:** Warm.

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

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

**Time:** 17:30.

**Observations / Customer Complaint:** Blank.

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

**Actions Taken:** Blank.

**NIGHT SHIFT PM**

**Temp:** Cool.

**Weather:** Clear night.

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

**Time:** 05:30.

**Observations / Customer Complaint:** OM3 – 0.021 at 05.09 – to end of shift. No wind.

**Operational issues / causes observed:** Area checked. No odour detected.

**Actions Taken.** Blank.

**Monday 13<sup>th</sup> May 2019**

**DAY SHIFT AM**

**Temp.:** Warm.

**Weather:** Sunny.

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

**Time:** 17:40.

**Observations / Customer Complaint:** OM3 0.020ppm 06.53-07.09.

**Operational issues / causes observed.** No odour issues.

**Actions Taken:** Blank.

**NIGHT SHIFT PM**

**Temp:** Cool.

**Weather.** Clear night

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

**Time:** 05:30.

**Observations / Customer Complaint.** om2 -0.016 @01.49 - 02.06,  
om3-0,021 @05.09 - 05.30

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

**Actions Taken.** Blank.

**Tuesday 14<sup>th</sup> May 2019**

**DAY SHIFT AM**

**Temp:** Warm.

**Weather:** Sunny.

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

**Time:** 17:30.

**Observations / Customer Complaint:** Blank.

**Operational issues / causes observed:** No odour issues. Nothing of  
note on trends.

**Actions Taken:** Blank.

**NIGHT SHIFT PM**

**Temp:** Cool.

**Weather:** Overcast night.

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

**Time:** 05:30.

**Observations / Customer Complaint:** Blank.

**Operational issues / causes observed:** OM3 spiked at 0510-0522  
<15 mins duration max 0.021.

**Actions Taken:** Blank.

**Wednesday 15<sup>th</sup> May 2019**

**DAY SHIFT AM**

**Temp:** Warm.

**Weather:** Sunny.

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

**Time:** 17:30.

**Observations / Customer Complaint:** Blank.

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

**Action Taken:** Blank.

**NIGHT SHIFT**

**Temp:** Cool.

**Weather:** Overcast night.

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

**Time:** 05:30.

**Observations / Customer Complaint:** Blank.

**Operational issues / causes observed:** OM3 spiked at 2324-2337 but <15 mins max 0.015ppm, OM3 spiked at 0010-0023 <15 mins max 0.015ppm, OM3 spiked at 0330-0510 max 0.021 ppm

**Actions Taken:** Checked area no obvious sources of odour found.

### **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					
10/05/2019	0	1491	244	1735	4235	5970
12/05/2019	78	1284	328	1690	2418	4108
14/05/2019	39	1097	473	1609	1416	3025

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**

Estimated average of 10 imports daily for preceding seven days.

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

The doors and windows of No.5 pumping station were all open at the time of the inspection. Thames advised works are being undertaken inside and venting of the building was required for staff safety.

### **Raw Sludge Screening House**

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

### **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** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 6** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 7** - In use – weak sloppy seal - Ongoing spitting/spill – requires anti-foam and clean-up.

**Digester 8** – In use – weak sloppy seal – no evidence of recent spill.

**Digester 9** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 10** – in use – seal level approx. 1ft below surface of coping stones.

**Digester 11** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 12** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 13** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 14** - out of use – empty and clean.

**Digester 15** - out of use – empty and clean.

**Digester 16** - out of use – empty and clean.

**Digester 17** - In use –weak sloppy seal – no evidence of recent spill.

**Digester 18** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 19** - In use – weak sloppy seal – no evidence of recent spill.

**Digester 20** - In use –weak sloppy seal – no evidence of recent spill.

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.

The area around all digesters was much improved with no evidence of recent or historical sludge spills. Thames advised they have been

actively undertaking regular clean-ups of this area of the works.

**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 operational at the time of the inspection but green algae and brown sludge was evident across large areas of the tanks surfaces.

**Skips**

No Skips present at the screening House- All clear.

No Skips present at the East side grit House- All clear.

No odour detected.

On the West side x2 16yd skip empty.

**East Side Screen House**

One pair of doors to the building were open at the time of the inspection. TW advised all screens were in operation and the doors were open due to staff undertaking daily checks of the screens.

**Return Activated Sludge Channel**

The nearside RAS channel was slightly clogged around 25% in the mid-section of both lanes.

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

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

Circular PSTs 9, 10, 11 & 12 all to in operation at the time of the inspection, and all had fat free surfaces.

**Pasteurisation Plant**

The pasteurisation plant is in service. TW advised 6 streams were currently out of service.

**Section 106 agreement**

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

**West Side Aeration Lanes (New)**

All of the aeration tanks had visible scum across the top surface However I can confirm that there has been a big improvement in comparison to the previous weeks inspection.

Most of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving E-Battery was partially clogged with rag and other floating debris by lanes 25. Tanker onsite during visit.

No odour was noticeable.

TW advised a tanker crew are regularly on site undertaking clearance of any clogged areas.

**New Inlet Works (West Side)**

No issues appeared evident at the new inlet works.

**Odour Control Unit (OCU) performance monitoring: 01/05/2019**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
-------	---------------	--------------------	-----------

Main pumping station inlet	0.00 0.00 0.00	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	Blank	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS 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