



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** 16<sup>th</sup> November 2017

**Attendees:** Mr Zaheer Kadri (L B Hounslow) & Mr D Kalamantis (Thames Water).

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

Tank 1A was empty & clean. Hoppers 1, 2 & 3 were all empty

Tank 1B was empty & clean. Hoppers 1, 2 & 3 were all empty.

Tank 2A and 2B were empty & clean. Hopper 1,2 and 3 of both tanks were empty.

Tank 3A and 3B were empty & clean. Hoppers 1, 2 & 3 were all approx a third full and needed to be drained down.

Tanks 4A, 4B, 5A & 5B are covered and odour controlled.

Tank 6A and 6B was empty & clean. Hoppers 1, 2 & 3 were all approx ¼ full and needed draining down.

Tank 7A and 7B were empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were mostly drained down.

Tank 8A and 8B were both empty & clean. Hoppers 1, 2 & 3 of both tanks were full. The hoppers needed draining down.

**Storm Water Channel**

The storm feed channel serving STW's 1A-8B was clear of effluent and only had a shallow level of water (<5%) along its entire length.

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all of the monitors, which were providing data at the time of inspection (approx 15:00).

Monitor 1	0.003	ppm
Monitor 2	0.007	ppm
Monitor 3	0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.004	ppm
Monitor 6	0.007	ppm
Monitor 7	0.000	ppm
Monitor 8	0.006	ppm
Monitor 9	0.005	ppm
Monitor 10	0.004	ppm
Monitor 11	0.006	ppm
Monitor 12	0.006	ppm
Monitor 13	0.005	ppm

**Complaints**

The Council received no complaints in the preceding week.

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

**Thursday 9<sup>th</sup> November 2017**

**AM** No odour problems, nothing to report on trends.

**PM** OM3 spike to 0.034ppm @ 00:39 less than 15min.

**Friday 10<sup>th</sup> November 2017**

**AM** OM2 showing 0.016ppm from 16:20-17:17- east inlet works checked and hosed down. Unable to find any odours above normal around the area.

**PM** OM1-5 – OM3 spiked to 0.022ppm between 19:42 -19:55.

**Saturday 11<sup>th</sup> November 2017**

**AM** No odour problems, nothing to report on trends.

**PM** Between 06:02 and 06:18 OM8 spiked to 0.026ppm, the area was checked and all was ok.

OM2 spiked to 0.021ppm at 12:37 for less than 15minutes.

OM1-5 spiked to 0.015ppm between 20:51 and 21:04.

**Sunday 12<sup>th</sup> November 2017**

**AM** No odour problems, nothing to report on trends.

**PM** No odour problems, nothing to report on trends.

**Monday 13<sup>th</sup> November 2017**

**AM** OM5 = one spike peaked at 0.020ppm less than 15 minute

OM8- one spike peaked at 0.025ppm less than 15 minutes

No odours detected.

**PM** OM5 peaked to 0.019ppm at 00:54-01:04

OM8 peaked to 0.016ppm between 18:50 to 19:03.

**Tuesday 14<sup>th</sup> November 2017**

**AM** OM3 one spike peaked to 0.033ppm less than 15minutes .

**PM** OM5 one spike peaked to 0.018ppm at 01:36 less than 15minutes- Areas checked all ok except for area around OM5 which had some odour emanating from aeration lane on "B" Battery.

**Wednesday 15<sup>th</sup> November 2017**

**AM** OM4 one spike peaked to 0.016ppm at 10:06 less than 15minutes .

**PM** No odour problems, nothing to report on trends.

**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					
10/11/17	*3514	1401	267	5182	1112	6294
13/11/17	*2533	778	267	3578	2450	6028
15/11/17	*2644	1068	61	3773	1416	5189

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 within three days and which has been complied with in this instance

\*Thames Water have informed LBH that West PSTs 1 are normally above the trigger due to the current sampling technique which is leading to higher levels of sludge being reported in the PSTs. Verification has confirmed the genuine sludge stocks are below the trigger level by using a sludge judge and checking the flowrate from the base of the tanks. Sludge judging will be used daily now to ensure accurate reporting.

#### **Imported Sludge**

There have been 70 imports of sludge over the last week (10 deliveries daily), each import containing 30m<sup>3</sup> of sludge.

#### **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 are permanently out of use.

Digester 5 was in use but had a wet sloppy seal.

Digesters 7 & 8 were in use but had low wet sloppy seals.

Digester 9 was in use but had a wet sloppy seal.

Digester 12 was in use but had wet sloppy seal.

Digester 13 is currently out of use.

Digester 15 was in use but had a wet sloppy seal.

Digester 16 is currently out of use.

Digester 6, 10, 11, 14 17, 18, 19 & 20 were all in use and had a good dry seals.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

### **Return Activated Sludge Channel**

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing and only contained a thin layer of fresh sludge along less than  $\frac{1}{4}$  of its length.

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

Rectangular PSTs are now covered and odour controlled.

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

**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).

At the time of the inspection all tanks except 71 & 77 were in operation.

**East Side Screen House**

The screen house doors were closed at the time of the inspection.

Thames confirmed all screens are in operation.

**Skips**

On the East side there was one low level open bulk carrier on site, this was empty no odour was present.

On the West side there were two empty large Bulk carriers.

**Pasteurisation Plant**

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed all 12 streams were running.

**Section 106 agreement**

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

**West Side Aeration Lanes (Old)**

No issues appeared evident.

**New Works (West Side)**

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with the same rag and other floating debris. It was again noted that strong offensive odour was present in the area.

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were still not working properly at the time of the inspection, again being clogged with pondweed (as per last week's inspection).

**New Inlet Works (West Side)**

No issues appeared evident at the new inlet works.

**Odour Control Unit (OCU) performance monitoring – 13/11/2017**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	0.00(av)	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurization plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes

# Jerome reading