



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

<b>Date of inspection:</b> 5 <sup>th</sup> June 2017	
<b>Attendees:</b> Mr A Devine (L B Hounslow) & Mr D Kalamantis (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>Tank 1A was empty &amp; clean. Hoppers 1, 2 &amp; 3 were all approximately ½ full and require overpumping</p> <p>Tank 1B was empty &amp; clean. Hoppers 1, 2 &amp; 3 were all approximately &lt;¼ full.</p> <p>Tank 2A was empty &amp; clean. Hoppers 1, 2 &amp; 3 were all approximately &lt;¼ full.</p> <p>Tank 2B has a small amount of dried sludge. Hopper 1, 2 &amp; 3 were all approximately 1/3 full.</p> <p>Tank 3A was empty &amp; clean. Hopper 1, 2 and 3 were approximately 1/3 full.</p> <p>Tank 3B was empty &amp; clean. Hopper 1 has a crust of sludge on the surface and requires overpumping. Hoppers 2 &amp; 3 were all approximately all &lt;¼ full.</p> <p>Tanks 4A, 4B, 5A &amp; 5B are covered and odour controlled.</p> <p>Tank 6A was empty &amp; clean. Hoppers 1 &amp; 2 were all approximately ¼ full. Hopper 3 was approximately 2/3 full and needed over pumping.</p>	

Tank 6B was empty & clean. Hoppers 1, 2 & 3 were all approximately  $\frac{1}{4}$  full and a crust was being to form on the surface. Localised odour was noted in this area. The hoppers required over pumping.

Tank 7A was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 7B was empty but had large areas of dry silt/grit at the top end of the tank. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 8A was empty & clean. Hopper 1 was approximately  $\frac{3}{4}$  full, hoppers 2 and 3 were approximately  $\frac{1}{3}$  full, these hoppers require over pumping.

Tank 8B was empty & clean. Hoppers 1 was approximately  $\frac{1}{3}$  full and hoppers 2 & 3 were all approximately  $<\frac{1}{4}$  full.

### **Storm Water Channel**

The storm feed channel serving STW's 1A to 4B has dried sludge which was noted to locally odorous, particularly around tanks 4A and 4B. Thames Water advised that the feed channel would be flushed. The feed channel serving STW's 5A-8B was empty 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 (approximately 13:32).

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

### **Complaints**

**The Council received 1 complaint via telephone in the preceding week.**

On 26<sup>th</sup> May at approximately 19:47 a resident called to report odour in the area of Thatcher's Way, Isleworth (South West side of the works) which has had a very bad smell all day. The duty Officer called the resident back at approximately 20:25. The complainant advised the duty officer that the odour had been bad on and off but now had stopped. The duty Officer advised the complainant that if the odour re-starts to call the out of hours line. During the weekly inspection the odour monitors were checked. The odour traces for the time of the complaint were analysed and no incidents were identified, however it should be noted that for monitors 2, 3 and 4 the time stamps did not move and this may indicate an issue with these monitors or the recorded information. The site odour log for the day recorded no odour issues for both the am and pm shift on the 26<sup>th</sup> May. The digesters are part of the site closest to the resident and the digester log recorded a spillage from digester 11 on the date of the complaint at approximately

19:00. The spillage was recorded as 'big' and went onto the road within the works. On this occasion it is likely that the spillage from the digesters was the source of odour that the resident complained of.

**The Council received 2 complaints via e-mail in the preceding week.**

On 3<sup>rd</sup> June 2017 at 01:57 an e-mail was received from a resident of Napier Road, Isleworth located to the south east of the site stating "again a really bad smell tonight from sewage. Not pleasant at all on a hot night when windows need to be opened". During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 8 recorded spikes of 0.034ppm between 19:54 to 20:06 and 0.073ppm between 21:24 to 21:36 and 0.038ppm between 22:24 to 22:36. The storm water tanks are the part of the works closest to Beaumont Place and the PM storm log taken at 13.30 on 3<sup>rd</sup> June showed that none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping and it has not been possible on this occasion to identify the source of odour complained of by the resident.

On 4<sup>th</sup> June 2017 at 00:56 an e-mail was received from a resident of Beaumont Place, Isleworth located to the south east of the site stating "again a really bad smell tonight from sewage. Not pleasant at all on a hot night when windows need to be opened". During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 8 recorded spikes of 0.034ppm between 19:54 to 20:06 and 0.073ppm between 21:24 to 21:36 and 0.038ppm between 22:24 to 22:36. The storm water tanks are the part of the works closest to Beaumont Place and the PM storm log taken at 23.00 on 3<sup>rd</sup> June showed that none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping and it has not been possible on this occasion to identify the source of odour complained of by the resident.

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

**Thursday 25<sup>th</sup> May 2017**

**AM** No odour issues on site.

**PM** No odour issues found or reported. No spikes on trends.

**Friday 26<sup>th</sup> May 2017**

**AM** No odour spikes. No odour problems.

**PM** Odour monitor 1 to 13 no spikes.

**Saturday 27<sup>th</sup> May 2017**

**AM** No odour spikes. No odour problems.

**PM** Odour monitor 3 0.020ppm from 9.26pm to 9.39pm. odour monitor 6 to 13 no spikes.

**Sunday 28<sup>th</sup> May 2017**

**AM** No odour issues. Nothing to report from trends.

**PM** Odour monitor 1 to 13 no spikes. Rain filling storm water tanks.

**Monday 29<sup>th</sup> May 2017**

**AM** No odour spikes. No odour issues on site.

**PM** Odour monitor 3 0.052ppm from 3.42 to 3.57. Odour monitor 3 0.030ppm between 4.12 to 5.12. Odour monitor 6 to 13 no spikes.

**Tuesday 30<sup>th</sup> May 2017**

**AM** Odour monitor 3 – one spike at 0.033ppm under 15 minutes. No other issues on site.

**PM** Odour monitor 3 0.051ppm between 19:23 to 19:53. Odour monitor 6 to 13 no spikes.

**Wednesday 31<sup>st</sup> May 2017**

**AM** No odour issues. No spikes on trends.

**PM** odour monitors 1 to 13 no spikes.

### 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					
26/05/17	0	328	61	389	5238	5627
29/05/17	0	971	61	1032	2303	3335
31/05/17	0	1115	122	1237	2979	4216

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.

### Imported Sludge

There have been 84 imports of sludge over the last week, 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 and had a good dry seal.

Digester 6 was in use but had a wet seal.

Digester 7 was in use but had a wet seal and was bubbling and spitting on one side.

Digester 8 was in use but had a wet seal.

Digesters 9 & 10 were in use & both had good dry seals.

Digester 11 was in use but had a wet seal.

Digester 12 was in use and had a good dry seal.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

Digester 15 was in use and had a good seal. There was evidence of a historic spill on the coping stones, which Thames Water advised would be cleaned up.

Digester 16 is currently out of use.

Digesters 17 & 18 were both in use and had good dry seals.

Digester 19 is currently out of service.

Digester 20 was in use and had a good dry seal.

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. Thames water advised that action would be taken on Digester 7.

**Return Activated Sludge Channel**

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along the three quarters of its length with thick dry sludge at the time of the inspection. It was also noted that hundreds of tiny flies/insects were crawling over the sludge. Thames advised a tanker is cleaning this out on a weekly basis.

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

Rectangular PSTs are now covered and odour controlled.

Circular PSTs 9, 11 & 12 were all in operation at the time of the inspection. PST 10 is currently out of service and drained down. Hoses were spraying into PT 10 at the time of the inspection.

**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 8 tanks were in operation and appeared to be working fine. Tanks 77 and 78 had a build-up of green algae on the surface.

**East Side Screen House**

The screen house now has new doors fitted, both pairs of which were closed at the time of the inspection.

Thames confirmed all screens were in operation.

**Skips**

On the East side there was 1 open low level bulk carrier on site that was empty and no odour was present.

On the West side there was one 12yd skip that was empty and one bulk container.

A 6yd skip which was covered was also present outside the pasturisation plant

**Pasteurisation Plant**

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed 10 of the 12 streams were operating.



**Section 106 agreement**

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

**West Side Aeration Lanes (Old)**

No issues appeared to be evident.

**New Works (West Side)**

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged with rag & debris along more than half its length.

The surface of the tanks appeared much improved and was visibly flowing again.

The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were not working properly at the time of the inspection, being clogged with pondweed.

Thames confirmed tanker crews are cleaning the mixed feed liquor channel out on a weekly basis.

**New Inlet Works (West Side)**

No issues appeared evident at the new inlet works.

**Odour Control Unit (OCU) performance monitoring – 31/5/2017**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station outlet	0.003(av)	0.2	Yes
East OCU	0.001(av)	0.05	Yes
West inlet	0.003(av)	0.05	Yes
Sludge reception outlet	0.000(av)	0.8	Yes
Thickening plant outlet	0.003(av)	0.6	Yes
Pasteurisation 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				