



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 26 th April 2018	
Attendees: Mr I Inman (L B Hounslow) & Mr A Haines (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and had dry residue on the tank floor at the hopper end. Hopper 1 was approx 1/3 full, hoppers 2 & 3 were both approx <1/4 full.</p> <p>Tank 1B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 2A was empty. Hoppers 1 & 2 were approx <1/4 full, hopper 3 was empty.</p> <p>Tank 2B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 3A was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 3B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was in use and approx <1/4 full.</p> <p>Tank 6B was empty. Hopper 1 was full, hopper 2 was approx 1/4 full & hopper 3 was approx 1/2 full.</p> <p>Tank 7A was empty. Hoppers 1, 2 & 3 (shallow hoppers) all had large amounts of grit and some effluent in them.</p>	

Tank 7B was empty. Hoppers 1, 2 & 3 (shallow hoppers) all had large amounts of grit and some effluent in them.

Tank 8A was empty but hoppers 1, 2 & 3 were all full and overflowing water at the hopper end of the tank.

Tank 8B was empty but hoppers 1, 2 & 3 were all full, at the time of the inspection staff were beginning to over pump them.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was relatively empty with only a shallow level of effluent along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 10:36 on 26th April 2018). However, odour monitors 1 & 2 were displaying incorrect times, OM1 displaying 06:25 & OM2 displaying 08:21).

Thames Water advised this will be looked into.

Monitor 1	0.000	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.005	ppm
Monitor 5	0.007	ppm
Monitor 6	0.007	ppm
Monitor 7	0.007	ppm
Monitor 8	0.007	ppm
Monitor 9	0.005	ppm
Monitor 10	-0.025	ppm
Monitor 11	0.008	ppm
Monitor 12	0.007	ppm
Monitor 13	0.006	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 19th April 2018

Observations AM OM8 spiked to 0.021ppm at 10:29-10:41

Actions: none.

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

Actions: none.

Friday 20th April 2018

Observations AM OM3 spiked to 0.022ppm at 07:01, less than 15 minutes.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Saturday 21st April 2018

Observations AM OM3 spiked to 0.018ppm at 16:45, less than 15 minutes.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Sunday 22nd April 2018

Observations AM No odour issues. Nothing to report on trends.

Actions: none.

Observations PM OM5 0.021ppm between 02:58-03:05. OM8 0.023ppm between 19:27-19:41.

Actions: No source found. No other issues.

Monday 23rd April 2018

Observations AM OM5 0.017ppm between 13:41-13:53.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Tuesday 24th April 2018

Observations AM OM1-5 no spikes. OM6-13 no spikes.

Actions: none.

Observations PM No odour issues. Nothing to report on trends.

Actions: none.

Wednesday 25th April 2018

Observations AM OM1-5 no spikes. OM6-13 no spikes.

Actions: none.

Observations PM No odour issues. Nothing to report on trends

Actions: none.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
20/04/18	0	1588	783	2371	6247	8618
23/04/18	0	1921	1199	3120	6579	9699
25/04/18	88	2424	577	3001	8926	12015

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 3 imports of sludge over the last week.

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.

Digesters 5 & 6 were both in use and had a wet seals.

Digester 7 was in use and had a wet seal that was bubbling off gas, the bell was also very high and spitting on one side of the digester.

<p>Digesters 8, 9, 10, 11 & 12 were all in use all had a very wet seals.</p> <p>Digesters 13 & 14 were both out of use.</p> <p>Digester 15 was in use and had a very wet seal.</p> <p>Digester 16 was out of use.</p> <p>Digesters 17, 18, 19 & 20 were all in use and had a very wet seals.</p> <p>Other than Digester 7 the remaining Digesters and bell heights were just below the half way mark. Although all Digesters had wet seals they only appeared to be bubbling off minimal amounts of gas.</p> <p>Automatic dosing of anti-foaming agent in now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p>	
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx $< \frac{1}{4}$ of its length on the nearside channel with thick sludge.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).</p>	

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

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames Water advised that some of the screens were out of service (possibly 3 & 4) due to maintenance requiring the use of a grit dredger. This involved the removal of large amount of grit that was being stored on the east side (see below).

Skips

On the East side there was one 14yds skip which contained a small amount of general rubbish and three 8yds skips that were all full of grit from the grit dredging unit. Odour was minimal but Thames Water were advised that they needed to cover and remove these skips as soon as possible.

On the West side there was one 40yds closed bulk carrier & one 20yds open bulk carrier that were both empty. No odour was present in the area.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised 9 of the 12 streams were in operation.

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 whole of tanks have again developed a thick “fluffy” coverage across the entire surface that had a thick crust in some areas. This appears no better since the previous inspection and all internal dividing walls were covered. None of the sprinklers were in operation and odour was becoming evident along the walkway on the north end of the lanes.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged on the surface along its entire length with floating debris and thick sludge that appeared crusty in places.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 09/04/2018

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
Pasteurisation plant outlet (OCU 12)	0.00(av)	0.5	Yes
Transfer PS outlet	0.00(av)	0.6	Yes
New West OCU 11 outlet	0.00(av)	0.6	Yes

Jerome reading