



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 02 nd May 2018	
Attendees: Mr A Devine (L B Hounslow) & Mr M Hussain (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 and had started to form a crust on the surface.</p> <p>Tank 1B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full and had started to form a crust on the surface.</p> <p>Tank 2A was empty. Hoppers 1 & 2 were approx <1/4 full and had started to form a crust on the surface, hopper 3 was empty.</p> <p>Tank 2B had grit in the bottom of the tank. Hoppers 1, 2 & 3 were all approx <1/2 full and had started to form a crust on the surface.</p> <p>Tank 3A was empty. Hoppers 1 & 3 were all approx <1/4 full and had started to form a crust on the surface. Hopper 2 was drained down.</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 empty with some residual grit. Hoppers 1, 2 & 3 were all approx 1/2 full and had started to form a crust on the surface.</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>	

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

Tank 7B had some water in the tank and covering the hoppers. Hoppers 1, 2 & 3 (shallow hoppers) were all full.

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

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 13:00 on 02nd May 2018).

Monitor 1	0.005	ppm
Monitor 2	0.006	ppm
Monitor 3	0.000	ppm
Monitor 4	0.006	ppm
Monitor 5	0.008	ppm
Monitor 6	0.010	ppm
Monitor 7	0.008	ppm
Monitor 8	0.008	ppm
Monitor 9	0.007	ppm
Monitor 10	0.000	ppm
Monitor 11	0.006	ppm
Monitor 12	0.007	ppm
Monitor 13	0.007	ppm

Complaints

The Council received no complaints in the preceding week.

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

Tuesday 24th April 2018

Observations AM No Spikes on trends. No odour issues on site.

Actions: None.

Observations PM Odour monitor 12 showing odour (0.016ppm) at 01:08am to 02:03am. Digester area checked and no odours found. Digester level 26m.

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.

Thursday 26th April 2018

Observations AM No odour issue.

Actions: None.

Observations PM No odour spikes. No other issues.

Actions: None.

Friday 27th April 2018

Observations AM Odour monitors 1 to 13 no spikes.

Actions: None.

Observations PM No information provided on the sheet.

Actions: None.

Saturday 28th April 2018

Observations AM No odour spikes.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

Actions: None.

Sunday 29th April 2018

Observations AM No odour problems. Odour monitors 1, 10 and 13 faulty.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

Actions: None.

Monday 30th April 2018

Observations AM No odour issues on site. No spikes on trends.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

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					
28//04/18	135	1860	1261	3256	9935	13191
30/04/18	0	1715	595	2310	7588	9898
01/05/18	0	1899	638	2537	8934	11471

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 5 imports of sludge a day on average 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.

Digesters 8, 9, 10, 11 & 12 were all in use all had a very wet seals.

Digesters 13 & 14 were both out of use.

Digester 15 was in use and had a very wet seal.

Digester 16 was out of use.

Digesters 17, 18, 19 & 20 were all in use and had a very wet seals. A historic spill was noted on the coping stones around digester 17. Thames Water advised that they would take action.

Other than Digester 7 the remaining Digesters and bell heights were just below the half-way point. Although all Digesters had wet seals they only appeared to be bubbling off minimal amounts of gas.

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.

Return Activated Sludge Channel

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.

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 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. Thames Water advised that these skips were taken off site at the end of each day.

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 – 03/05/2018

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