



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 20th September 2018

Attendees: Mr A Devine (L B Hounslow) & Mr M Hussain (Thames Water).

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tanks 1A to 3B were all empty and clean. All the Hoppers had been drained down but were still approximately 20% full. These hoppers could be further overpumped. A slight localised odour was noted around tank 1B. This odour could be from the very low levels in the storm water channel.

Tanks 4A, 4B, 5A & 5B are covered and odour controlled. Unable to gauge condition as lighting system still not working.

Tank 6A and 6B were empty and clean. Hoppers 1, 2 & 3 of both tanks were approximately 30% full and required further overpumping.

Tanks 7A and 7B was empty however some grit had accumulated at the Hopper end which needed sweeping. Hoppers 1, 2 & 3 (shallow hoppers) were full of effluent and required draining down.

Tank 8A had a leakage and need flushing. Hoppers 1, 2 & 3 were all approx 40% full and needed draining down.

Tank 8B was empty and clean. Hoppers 1 & 2 were approx $\frac{3}{4}$ at the time of the inspection. Hopper 3 was full. All the hoppers required further overpumping.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was virtually empty with only a shallow level of effluent along its entire length, however some patches of grit and sludge were noticeable.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:30 on 20th September 2018).

Monitor 1	0.005	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.006	ppm
Monitor 6	0.006	ppm
Monitor 7	0.004	ppm
Monitor 8	0.005	ppm
Monitor 9	0.000	ppm
Monitor 10	0.003	ppm
Monitor 11	0.004	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm
Wind Direction	199,000	
Wind Speed	16.000	

Complaints

The Council received no complaints in the preceding week via email, phone or MRAG.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 13th September 2018

AM Cool. Sunny.

All OMU's in use.

Observations: 17:30 No issues.

Actions None.

PM Cool, Clear night.

All OMU's in use.

Observations: 05:30 OM3 0.022ppm between 18:00 to 18:13. 13 minutes spike.

Actions None.

Friday 14th September 2018

AM Cool. Rainy/sunny spells.

All OMU's in use.

Observations: 17:30 OM3 between 0.023ppm 10:29am to 10.41am, 0.023ppm between 11:59am to 1211pm, 0.026ppm between 13:44pm to 13:56pm, 0.023ppm between 14:29pm to 14:41pm.

Actions None.

PM Cool Clear night.

All OMU's in use.

Observations: 05:30 No odour issues.

Actions None.

Saturday 15th of September 2018

AM Cool. Sunny w/patchy clouds.

All OMU's in use.

Observations: 17:15 Odour Monitor 2 spiking early in shift max 0.021ppm, no odours found.

Actions None

PM Cool Overcast Night.

All OMU's in use.

Observations: 05:30 No odour issues.
Actions None.

Sunday 16th September 2018

AM Cool. Sunny w/patchy clouds.
All OMU's in use.

Observations: 17:30 No odour issues.
Actions None.

PM Cool. Clear night.
All OMU's in use.

Observations: 05:30 Odour monitor 2 0.020ppm between 23:12pm to 23:25pm.

Actions None.

Monday 17th September 2018

AM Warm. Cloudy with sunny spells.
All OMU's in use.

Observations: 17:30 No odour issues.
Actions None.

PM Cool. Clear night.
All OMU's in use.

Observations: 05:30 OM2 Max spikes 0.022ppm between 19:42pm to 19:54pm, 0.032ppm between 22:42pm to 23:54pm, 0.020ppm between 00:27am 00:39am and 0.021ppm 01:12am to 01:39am. Odour Monitor 3 max 0.023ppm between 21:44pm to 21:57pm.

Actions East inlet Area-Tankers offloading throughout night.

Tuesday 18th September 2018

AM Warm. Sunny.
All OMU's in use.

Observations: 17:30 O/M3 spiked to 0.024ppm for 15mins. Some localised H²S smell from PST 25 being drained.

Actions None.

PM Warm. Rain.
All OMU's in use.

Observations: 05:30 OM5 = 0.024ppm between 01.41am to 01.53am.

Actions East inlet Area-Tankers offloading throughout night. Sludge imports throughout the night.

Wednesday 19th September 2018

AM Warm. Sunny w/patchy Clouds.

All OMU's in use.

Observations: 17:45 No odour issues.

Actions None.

PM Warm, overcast night.

All OMU's in use.

Observations: 05:30 No odour issues.

Actions East inlet Area-Tankers offloading throughout night. Sludge imports throughout the night.

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m ³					
OMP limit	500					
13/09/18	0	534	0	534	1264	1798
14/09/18	0	970	0	970	1316	2286
17/09/18	0	760	0	760	2024	2784

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 on average 10 imports of sludge daily 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 to 10 were in use and had wet weak bubbly seals.

Digester 11 was in use and there was evidence of a large spill occurring during the inspection. This spill had covered the copping stones and was

on the tarmac area. The spill was occurring at multiple locations around the digester. Thames Water advised that action would be taken to clean up the spill.

Digester 12 was in use and had wet weak bubbly seal.

Digesters 13 and 14 were out of service.

Digester 15 was in use and had a wet weak seal. There was also evidence of a historic spill which needs cleaning. Thames Water advised that this would be done.

Digester 16 was out of service.

Digester 17 was in use and had a good seal.

Digester 18 was in use and had a weak seal.

Digester 19 was in use and had a weak seal.

Digester 20 was in use and had a good seal

Automatic dosing of anti-foaming agent is 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 along its length, however sections were noted to have sludge at the surface.

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. Some algae growth noticeable across surfaces

GENERAL

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final settlement tanks (71-78). Some algae growth noticeable across surfaces

At the time of the inspection all tanks were in operation except for tank 72.

East Side Screen House

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

Skips

On the East side there was one 8yd skip which contained rag. The cover had blown off the skip. Thames Water replaced the cover while on site. There was a large Biffa Loader 20yd skip however was empty and uncovered.

At the entrance to the storm tanks there was one 4yd skip with general waste inside and covered with Tarpaulin.

On the West side there was one 8yd skip at the entrance of the digesters- this contained general waste (minimal) this skip was uncovered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised that 4 streams out of 12 were not in operation due to maintenance.

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)

All of the aeration tanks have again developed a thick “fluffy” coverage across their entire surface. However, the surface appears much improved and free flowing. All sprinklers were in operation and works to improve the pressure to these sprinklers had been carried out.

E-Battery:

The feed channel for aeration lane 25 was clogged on the surface along its entire length with thick sludge tankers were on site during the inspection to remove this material.

The mixed liquor feed channel serving aeration lane 21 had a slight build-up of sludge during the inspection.

Localised odour was noticeable in places along the mixed liquor feed channel and a tanker crew were on site undertaking clearance of the clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 18/09/2018

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)	0.002(av)	0.5	Yes
Transfer PS outlet	0.00(av)	0.6	Yes
New West OCU 11 outlet	0.02(av)	0.6	Yes
# Jerome reading			