



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 13th September 2018

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

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A empty & clean. All hoppers drained down to lowest point. Slight grit at the rear of the tank.

Tank 1B empty and clean. All hoppers drained down to lowest point.

Tank 2A empty and clean. All hoppers drained down to lowest point.

Tank 3A empty and clean. All hoppers drained down to lowest point.

Tank 3B empty and clean. All hoppers drained down to lowest point.

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

Unable to gauge condition as lighting system still not working. Window hatch removed to enable access for over-pumping and requires replacement.

Tank 6A empty and clean. All hoppers drained down to lowest point.

Tank 6B empty and clean. All hoppers drained down to lowest point.

Tank 7A empty and clean. All hoppers drained down to the lowest point. Slight build up grit at the rear of the tank.

Tank 7B empty and clean. All hoppers drained down to the lowest point. Slight grit build up at the hopper end of the tank.

Tank 8A had a leakage and need flushing. Hoppers 1, 2 & 3 were all approx. ¾ full and needed draining down.

Tank 8B empty clean. All hoppers were nearly full and require draining down.

Thames advised that all tanks and hoppers were flushed yesterday to prevent potential issue with insects (mosquitos).

Storm Water Channel

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

Odour Monitors

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

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

Monitor 13	0.000	ppm	
Wind Direction	248,000		
Wing Speed	10.000		

Complaints

The Council received 0 complaints in the preceding week.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 06th September 2018

AM

Temp: Warm.

Weather: Sunny W/ patchy clouds.

All OMU's in use.

Time: No time noted.

Observations/ Customer complaint: OM3 0.017 PPM.

Operational Issues/ causes observed: 16:58 – 17:11 (13 mins).

Actions taken: None noted.

PM

Temp: Cool

Weather: Overcast Night.

All OMU's in use.

Time: 05:15.

Observations/ Customer complaint: OM3 - 0.034PPM.

Operational Issues/ causes observed: Area checked no issues found.

Actions taken: No action taken.

Observations/ Customer complaint: 18:44 till 19:09.

Operational Issues/ causes observed: OCU11 checked.

Actions taken: None noted.

Friday 7th September 2018

AM

Temp: Warm.

Weather: Sunny W/ patchy clouds.

All OMU's in use.

Time: 17:30.

Observations/ Customer complaint: OM3 0.040 max.

Operational Issues/ causes observed: 16:14 – 17:11.

Observations/ Customer complaint: OM3 0.023.

Operational Issues/ causes observed: 14:29 -14:41.

Actions taken: OM3 0.054 max 8:44 - 9:11.

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/ Customer complaint: Blank.

Operational Issues/ causes observed: No odour issues.

Actions taken: Blank.

Saturday 8th September 2018

AM

Temp: Warm

Weather: Sunny W/ patchy clouds.

All OMU's in use.

Time: 17:30

Observations/ Customer complaint: OM3 0.027.

Operational Issues/ causes observed: 14:14- 14:34.

Actions taken: No source found.

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/ Customer complaint: OM2 0.015PPM.

Operational Issues/ causes observed: Spike for 13 minutes.

Actions taken: No odour identified.

Sunday 9th September 2018

AM

Temp: Warm.

Weather: Sunny W/ patchy clouds.

All OMU's in use.

Time: 17:30.

Observations/ Customer complaint: OM3 0.065.

Operational Issues/ causes observed: 11:30 -13:12.

Actions taken: OM3 0.016 16:57 -17:10 (No odours found all).

Observations/ Customer complaint: OM3 0.024

Operational Issues/ causes observed: 13:00 – 13:12.

Actions taken: OM2 0.018 9:40 -09:52 (OM3 spikes suspect OCU11as u/s still).

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30

Observations/ Customer complaint: OM3 0.029PPM.

Operational Issues/ causes observed: 17:36 – 17:51.

Actions taken: No odour identified. OCU11 chemical dosing not operational.

Monday 10th September 2018

AM

Temp: Warm.

Weather: Cloudy w/ sunny spells.

All OMU's in use.

Time: 17:30.

Observations/ Customer complaint: OM2 spiked twice 06:56 – 07:09. (13mins) and 07:26 – 07:39 (13 mins) both 15 mins duration max 0.036PPM.

Operational Issues/ causes observed: OM3 spiked multiple times (6) 08:56-09:09 0.45PPM, 10:29 – 10:56 0.025PPM, 11:41 – 11:56 0.045, 12:14 – 12:26 0.018, 13:14 – 13:26 0.045PPM.

Action taken: Odour investigation patrol commenced no abnormal odours found.

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/ Customer complaint: OM3 spiked twice. 0.061PPM 01:06 – 01:21, 0.026PPM 02:36 – 02.51.

Operational Issues/ causes observed: No odours identified OCU11 chemical dosing not operational.
Actions: None noted.

Tuesday 11th September 2018

AM

Temp: Warm.

Weather: Cloudy W/Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/ Customer complaint: OM3 spiked once but 15 mins duration, max 0.016PPM.

Operational Issues/ causes observed: None noted.

Actions: None noted.

PM

Temp: Cool.

Weather: Rain.

All OMU's in use.

Time: 05:30.

Observations/ Customer complaint: None noted.

Operational Issues/ causes observed: No issues.

Actions: None noted.

Wednesday 12th September 2018

AM

Temp: Cool

Weather: Rain

All OMU's in use apart from OM3.

Time: 17:30.

Observations/ Customer complaint: OM3 flat lining no other odour issues found or reported.

Operational Issues/ causes observed: None noted.

Actions: Reported.

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use apart from OM3.

Time: 05:30.

<p>Observations/ Customer complaint: OM5 0.016 00:24 – 00:37 0.018 to 0.026 22:11 – 22:39. Operational Issues/ causes observed: None noted. Actions: No source found.</p> <p>Observations/ Customer complaint: OM4 0.021 22:11 – 22:24. Operational Issues/ causes observed: None noted. Actions: None noted.</p>	
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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					
06/09/18	80	183	0	263	1234	1497
07/09/18	0	328	0	328	1449	1777
10/09/18	59	0	0	59	1592	1651

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 10 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.

Digester 5 was in use and had a weak seal. No evidence of spillage.

Digester 6 was in use and had a weak seal. No evidence of spillage.

Digester 7 was in use and had a weak seal. No evidence of spillage.

Digester 8 was in use and had a weak seal. No evidence of spillage.

Digester 9 was in use and had a weak seal. No evidence of spillage.

Digester 10 was in use and had a weak seal. No evidence of spillage.

Digester 11 was in use and had a weak seal. No evidence of spillage.

Digester 12 was in use and had a weak seal. No evidence of spillage.

Digesters 13 & 14 were both out of service.

Digester 15 was in use and had a weak seal. No evidence of spillage.

Digester 16 was out of service.

Digester 17 was in use and had a weak seal. No evidence of spillage.

Digester 18 was in use and had a good seal, pellets in use. No evidence of spillage.

Digester 19 was in use and had a weak seal. No evidence of spillage.

Digester 20 was in use and had a thick crusty seal. No evidence of spillage.

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.

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 settlement tanks (71-78).

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

Some algae growth noticeable across surfaces

East Side Screen House

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

Skips

On the East side there was two 6yd skips open and empty.

On the West side there was one 6yd skip at the entrance to the digesters which contained general waste and was covered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised that 3 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 developed a thick fluffy appearance across the entire surface. Some of the sprinklers were out of action due to issues with water pressure/flow however operatives from Celvac were working to resolve the matter whilst we were on inspection.,

E-Battery:
The feed channel for aeration lane 25 was clogged on the surface along its entire length with thick sludge that appeared crusty in places. No odour present.

The mixed liquor feed channel serving aeration lanes 24, 23, 22 & 21 had a thick sludgy surface. Odour was not present during inspection.

Odour was not present 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 – 5/09/2018

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)	0.00(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				