



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 29 th June 2017	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Dimitrios Kalmantis (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty and flushed clean -- approximately 15% of tank covered by grit – requires further flushing Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 10% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - approximately 15% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed clean - approximately 25% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank full and in process of being returned – all Amajets in use.</p> <p>Tank 3B – Tank full and in process of being returned – all Amajets in</p>	

use.

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all full - unable to gauge condition as lighting system still not working.

Tank 6A – Tank recently returned - empty and flushed clean - Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Tank 6B – Tank empty and flushed clean – approximately 25% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to 40% from bottom level – effluent water.

Tank 7A – Tank empty and flushed clean – - approximately 15% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 7B – Tank empty and flushed clean – approximately 15% of tank covered by grit – requires further flushing - Hopper 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean – approximately 10% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 approximately 85% full of effluent water – requires draining down/over-pumping – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8B – Tank full and in process of being returned – all Amajets in use.

Feed Channel - The level of effluent in both feed channels was low – approximately 5% - almost bottomed out in places – some grit and sludge - no local odour.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.000	ppm	00:00
Monitor 2	0.000	ppm	00:00
Monitor 3	0.000	ppm	00:00
Monitor 4	0.000	ppm	00:00
Monitor 5	0.000	ppm	00:00
Monitor 6	0.000	ppm	00:00
Monitor 7	0.000	ppm	00:00
Monitor 8	0.000	ppm	00:00
Monitor 9	0.000	ppm	00:00
Monitor 10	0.000	ppm	00:00
Monitor 11	0.000	ppm	00:00
Monitor 12	0.000	ppm	00:00
Monitor 13	0.000	ppm	00:00
Wind Speed	0	mph	
Wind Direction	0°		

System offline in office at time of inspection so unable to review current trace data – no odours noticeable on site throughout inspection.

Complaints

The Council directly received no complaints by telephone in the preceding week.

The Council directly received two complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Thames Water controller advised that they had received no direct complaints in the preceding week.

Odour Log (Thames) - Photocopies of log entries taken

Thursday 22nd June 2017

AM – Warm with Sun and heavy cloud.

All OMU's in use.

Observations: "O/M 9 spiked to 0.020 @ 12:30 but less than 10 mins."

Actions: None noted.

PM – Warm with Sun and partial cloud.

All OMU's in use.

Observations: "No spikes on Trends. No odour issues"

Actions: None noted.

Friday 23rd June 2017

AM – Warm with Sun and heavy cloud.

All OMU's in use.

Observations: "No odour issues. Nothing to report on trends."

Actions: None noted.

PM – None noted.

All OMU's in use.

Observations: "Trends showing no spikes."

Actions: "Small sludge spill cleaned up in Pasteurisation Area."

Saturday 24th June 2017

AM – None noted.

All OMU's in use.

Observations: "OM 1-5 No spikes. OM 6-13 No spikes. 1 noise complaint received via Gail."

Actions: "Blowers visited DBell reading taken."

PM – Warm with Sun and heavy cloud and light showers.

All OMU's in use.

Observations: "Trend showing no odour spikes. No odour problems on site."

Actions: None noted.

Sunday 25th June 2017

AM – Warm with Sun and partial/heavy cloud.

All OMU's in use.

Observations: "OM 1-5 no spikes. OM 6-13 no spikes."

Actions: None noted.

PM – Warm.

All OMU's in use.

Observations: "No odour spikes. No odour problems."

Actions: None noted.

Monday 26th June 2017

AM – Hot with Sun and partial cloud.

OMU - All OMU's in use.

Observations: ""No odour spikes. C Battery SAS Channel smelly."

Actions: None noted.

PM – Warm with Sun and partial cloud.

All OMU's in use.

Observations: "No odour spikes showing on Trends."

Actions: None noted.

Tuesday 27th June 2017

AM – Cool with partial Sun, cloud and rain.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Cool with heavy cloud and partial sun.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Wednesday 28th June 2017

AM – Cool with cloud and partial Sun.

All OMU's in use – OMU13 "faulty redbox -0.023 (put on job sheet)."

Observations: "No odour issues."

Actions: None noted.

PM – None noted.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

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					
23/06/17	88	825	183	1096	5763	6856 (TW figure 6771)
26/06/17	39	679	122	840	5621	6461
28/06/17	39	1260	581	1880	5293	7173

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) for all dates on which data has been provided. There are no limits for the East side primary settlement PST 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.

Sludge Screening House

Shutter doors closed at time of inspection – no local odours.

Imported Sludge

Ten imports of 35m³ daily for preceding seven days.

Digesters

Digesters 1-4 – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

Digester 5 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 6 - in use – seal level approx. 3ft below coping stones – good seal.

Digester 7 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling vigorously.

Digester 8 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling – evidence of dry spill requiring clean-up.

Digester 9 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 10 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 13 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 14 - in use – seal level approx. 2ft below coping stones – good seal.

Digester 15 - in use – seal level approx. 8ft below coping stones – good seal.

Digester 16 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 17 - in use – seal level approx. 3ft below coping stones – good seal.

Digester 18 - in use – seal level approx. 3ft below coping stones – good seal.

Digester 19 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 20 - in use – seal level approx. 4ft below coping stones – good seal.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

3x full, 5x partially filled & 3 empty tanks of anti-foaming agent seen positioned throughout area. Installation of “auto-dosing” for anti-foam agent to all digesters operational – currently using 2-3 tanks weekly.

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) all are back in service following maintenance works to scrapers. Tanks 71, 77 & 78 surface completely covered in algae.

East Side Screen House

All doors closed.

Other Skips

2x full small grit skip on North/East of site by grit house – covered with “heavy duty” yellow tarpaulin. – Ongoing maintenance to this plant requiring over-pumping.

1x large open general waste skip at rear of screen house.
On the West side there were no skips.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

Section 106 agreement

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

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST 9 out of use and undergoing maintenance. Circular PST's 10, 11 & 12 all in use – large fat deposit on surface of 11.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 75% obstructed – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 - 25 approximately 95% obstructed – requires jetting.

Whole of tanks have “fluffy” coverage across 100% of tanks – improved and reduced since last inspection – dried crust on caps of all retaining walls – Sprinklers in use. Quantity of physical detritus in tank still bypassing screener.

Miscellaneous

Currently trialling use of 2 independent mobile monitoring stations that can be deployed to areas where recurrent issues in order to assist in diagnostics.

Odour Control Unit (OCU) performance monitoring – (30/06/17)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.05 0.03 0.02	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.009 0.008 0.008	0.05	Yes
West inlet OCU	0.000 0.000 0.000	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	0.028 0.027 0.021	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	No data provided	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes

OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes	
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