



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 7 th December 2018	
Attendees: Mr Steven Maunders & Lorien Nash (London Borough of Hounslow) and Mr Manzoor Hussein (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 – recently returned - approximately 50% of tank covered by grit and sludge – requires further flushing - Hoppers 1 & 3 full & Hopper 2 75% full - requires draining/over-pumping.</p> <p>Tank 1B – Tank empty and flushed clean – Hoppers 1, 2 & 3 full - requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean – Hopper 1 approx. 60% full - requires draining/over-pumping. Hoppers 2 & 3 empty.</p> <p>Tank 2B – Tank recently returned – approx. 40% of tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 60% full - requires draining/over-pumping.</p> <p>Tank 3A – Tank empty and flushed clean – Hopper 1 approx. 40% full – requires draining/over-pumping. Hoppers 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank recently returned – approx. 40% of tank covered by</p>	

grit and sludge – requires further flushing - Hoppers 1, 2 & 3 approx. 75% full – requires draining/over-pumping.

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

Tank 6A – Tank being filled - approx. 20% at time of inspection.

Tank 6B – Tank empty and flushed - approximately 25% of tank covered by grit and sludge – requires further flushing. – Hoppers 1 & 3 full – Hopper 2 50 % full - requires draining/over-pumping.

Tank 7A – Tank being filled - approx. 20% at time of inspection.

Tank 7B – Tank being filled - approx. 5% at time of inspection.

Tank 8A – Tank being filled - approx. 5% at time of inspection.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by grit and sludge – requires further flushing. Hoppers 1, 2 & 3 full. - requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was high and flowing fast- approximately 50% at time of inspection – large quantity of rainfall in catchment area recent and continuing – no local odours.

Complaints

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

The Council directly received no 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 (although this contradicts Odour Log).

Odour Monitors

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

Monitor 1	0.008	ppm	11:06
Monitor 2	0.008	ppm	11:06
Monitor 3	0.004	ppm	11:06
Monitor 4	0.008	ppm	11:06
Monitor 5	0.006	ppm	11:06
Monitor 6	0.007	ppm	11:06
Monitor 7	0.009	ppm	11:06
Monitor 8	0.011	ppm	11:06
Monitor 9	0.004	ppm	11:06
Monitor 10	0.006	ppm	11:06
Monitor 11	0.008	ppm	11:06
Monitor 12	0.007	ppm	11:06
Monitor 13	0.009	ppm	11:06
Wind Speed	4	mph	11:06
Wind Direction	68°		11:06

Odour Log (Thames) - Photocopies of log entries taken

Thursday 29th November 2018

AM – Cool – Overcast Night

All Omu's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues/complaints."

Actions: None noted.

PM – Cold – Rain.

All OMU's in use.

Observations/Complaints: "Mon5 – 0.02 @ 00:53-01:52."

Operational Issues/Causes: "PAS bottom road smell."

Actions: None noted.

Friday 30th December 2018

AM – Cool – Overcast Night

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues found or reported."

Actions: None noted.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM7 0.019ppm 21:00 - 21:15."

Operational Issues/Causes: "Area around both monitors checked. No odour detected. No issues found."

Actions: None noted.

Saturday 1st December 2018

AM – Cool – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues found or reported."

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: OM7 0.025ppm 02:14 - 02:30. OM5 spiked once less than 15 minutes.

Operational Issues/Causes: "No odour identified."

Actions: None noted.

Sunday 2nd December 2018

AM – Cool – Cloudy w/Sunny Spells.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues found or reported."

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.016ppm 21:53 - 22:07. OM4 0.015ppm 23:44 - 00:42.

Operational Issues/Causes: "OM5 on spike less than 15 minutes. Area investigated around monitor 4. Slight smell of biogas. Siloxane Plant regenerating."

Actions: None noted.

Monday 3rd December 2018

AM – Cool – Rain.

OMU - All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues found or reported."

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM7 0.021ppm 18:44 - 19:00."

Operational Issues/Causes: "Area investigated no odour identified. Spike lasted 16 minutes."

Actions: None noted.

Tuesday 4th December 2018

AM – Cold – Cloudy w/Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM No.1 spiked at 09:53 for 17 mins. Max 0.028."

Operational Issues/Causes: "Storm Tank Hoppers being pumped."

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues/complaints."

Actions: None noted.

Wednesday 5th December 2018

AM – Cool – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues found or reported."

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No issues/complaints."

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					
30/11/18	0	1401	61	1462	3715	5177
03/12/18	0	1195	206	1401	2409	3810
05/12/18	0	1715	0	1715	1592	3307

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) for all of the dates for which data has been provided.

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.

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. 2t below coping stones – seal weak and bubbling.

Digester 6 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 7 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling - Ongoing spitting/spill – requires anti-foam and clean-up – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 9 - in use – seal level at surface of coping stones – seal weak and bubbling. Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 10 – in use – seal level at surface of coping stones – seal weak and bubbling – evidence of recent spill – requires anti-foam and clean-up – Bell height high – requires draw down of biogas.

Digester 11 - in use – seal level at surface of coping stones – seal weak and bubbling. Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 12 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

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

Digester 14 - out of use – empty and clean – contractor on site undertaking maintenance.

Digester 15 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling. Ongoing spitting/spill – requires anti-foam and clean-up.

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

Digester 17 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 18 -- in use – seal level approx. 2ft below coping stones – seal weak and bubbling. Stones have been added.

Digester 19 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 20 - in use – seal level approx. 3ft below coping stones – seal

weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at time of inspection.

Imported Sludge

Estimated average of twelve imports daily for preceding seven days.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). Green Algae on 100% of surface of Tanks 73 & 74.

Skips

1x 8 yard empty, 1x 6 yard empty skips and 1x large open container skip containing 2x black sack positioned in Service Road by FST's 71-78.

1x large enclosed skip containing waste metals and 1x large open general waste skip located in Service Road by Storm Water Tanks.

1x partially filled small grit slips by Sludge Screening House.

1x open skip in use for transfer materials from mobile screening plant located by Pasteurisation Plant.

1x large enclosed grit/rag skips located by PST's 9-12 – elevated at one end to drain liquid from within as exceed safe carriage weight for vehicles – advised that management of fluids draining from within requires improvement as currently ponding within areas of broken hard-

standing where currently located.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use. Currently installing trial of odour control "mistors" on Tank 10 – pipe installed around tank top tail with nozzle sprays at regular intervals which can be utilised to create a plume of deodoriser (same as current mobile units on site) – intention to roll this out to all "odorous areas" on site if proves effective during trial period – initial testing has proven successful to date – trial ongoing.

Pasteurisation Plant

Pasteurisation plant 4/7/9 currently out of service - All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 10% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 21-23 clear and unobstructed – recently jetted.

"Fluffy" coverage across surface returning in approx. 20% of tank. Quantity of physical detritus in tank bypassing screener reduced.

Odour Control Unit (OCU) performance monitoring – (05/12/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.11 0.10 0.10	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.02 0.02 0.02	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.01 0.01 0.01	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.01 0.01 0.01	0.5	Yes