



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 30th August 2018

Attendees: Mr I Inman (London Borough of Hounslow) and 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 clean. Hopper 1 was $\frac{1}{2}$ full, hoppers 2 & 3 were both $<\frac{1}{4}$ full. All hoppers required draining down.</p> <p>Tank 1B was empty and clean. Hopper 1 was $\frac{3}{4}$ full, hoppers 2 & 3 were both $\frac{1}{2}$ full. All hoppers required draining down.</p> <p>Tank 2A was empty and clean. Hopper 1 was $\frac{3}{4}$ full, hopper 2 was $\frac{1}{2}$ full and hopper 3 was $\frac{1}{3}$ full. All hoppers required draining down.</p> <p>Tank 2B was empty and clean. Hopper 1 was $\frac{3}{4}$ full, hopper 2 was $\frac{2}{3}$ full and hopper 3 was $\frac{3}{4}$ full. All hoppers required draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1 & 3 were both $\frac{2}{3}$ full, hopper 2 was $\frac{1}{3}$ full. All hoppers required draining down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all $\frac{1}{2}$ full and required draining down.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not</p>	

working.

Tank 6A was approx ¼ full and being returned. Amajets 1, 2 & 3 were all operating.

Tank 6B was also approx ¼ full and being returned. Amajets 1, 2 & 3 were all operating.

Tank 7A had just been returned and had a wet sludge across approx. 60% of the tank floor. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit.

Tank 7B had also just been returned and had a wet sludge across approx. 60% of the tank floor. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit.

Tank 8A was clean and empty. Hopper 1 was completely full, hoppers 2 & 3 were both ¾ full. All hoppers required draining down.

Tank 8B contained a shallow level of effluent across half the tanks length and required returning.

Feed Channel - The level of effluent in both feed channels was low, approximately 15% along its entire length.

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.

Odour Monitors

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

Monitor 1	0.004	ppm	09.20
Monitor 2	-0.025	ppm	09.20
Monitor 3	0.000	ppm	09.20
Monitor 4	0.000	ppm	09.20
Monitor 5	0.000	ppm	09.20
Monitor 6	0.000	ppm	09.20
Monitor 7	0.008	ppm	09.20
Monitor 8	0.004	ppm	09.20
Monitor 9	0.000	ppm	09.20
Monitor 10	0.000	ppm	09.20
Monitor 11	0.005	ppm	09.20
Monitor 12	0.000	ppm	09.20
Monitor 13	0.000	ppm	09.20
Wind Speed	1.000	mph	09.20
Wind Direction	15.000	°	09.20

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

Thursday 23rd August 2018

AM

Temp. Warm.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.
Actions. Blank.

Friday 24th August 2018

AM

Temp. Warm.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

PM Rain.

Temp. Cool.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

Saturday 25th August 2018

AM

Temp. Warm.

Weather. Sunny with patchy cloud.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

PM

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. OM2 spiked 0.017max 21:28
<15mins duration.

Actions. Blank.

Sunday 26th August 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

Monday 27th August 2018

AM

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions. Blank.

PM

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. OM1 0.016ppm between 17:28-18:26.

Actions. In storm tank area-tanks returning-Amajets on.

Tuesday 28th August 2018:

AM

Temp. Cool.

Weather. Sunny with patchy cloud.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions: Blank.

Wednesday 29th August 2018:

AM

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions: Blank.

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					
24/08/18	0	244	0	244	1416	1660
26/08/18	0	905	0	905	1744	2649
28/08/18	20	244	0	264	1112	1376

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.

Imported Sludge

There have been 3 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 – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining.

Digester 5 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 6 was in use but had a very wet seal that was bubbling off

small amounts of gas.

Digester 7 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 8 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 9 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 10 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 11 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 12 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digesters 13 & 14 were both out of service.

Digester 15 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 16 was out of service

Digester 17 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 18 was in use and had a good dry crusty seal.

Digester 19 was in use but had a very wet seal that was bubbling off small amounts of gas.

Digester 20 was in use and had a good dry crusty 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.

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). Green Algae on 50% of surface of Tanks 73, 74 75 & 76.

Skips

On the East side there was one 20yds open bulk carrier that was empty. One 8yds, one 12yds & one 14yds skips that were all empty. One 12yds skip that contained a small amount of rubbish and grit that was covered with a tarpaulin

On the West side there was one 40yds closed bulk carrier that was empty.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are currently in operation.

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. TW advised no issues.

Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised all 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 (New)

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. None of the sprinklers were in operation at the time of the inspection and appeared clogged with weed and other matter.

Some quantity of physical detritus in tank still bypassing screener.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was clogged on the surface along its entire length with and thick sludge that appeared crusty in places.

The channel serving aeration lanes 21, 22 & 23 were free flowing.

Odour was noticeable in places along the mixed liquor feed channel and TW advised a tanker crew are regularly 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: 29/08/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000 0.000 0.000	Unknown	Unknown
Main pumping station outlet	0.007 0.004 0.004	0.2	Yes
East OCU	0.000 0.000 0.000	0.05	Yes
West inlet OCU	0.005 0.005 0.005	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.000 0.000 0.000	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.000 0.000 0.000	0.6	Yes
New West inlet (OCU 11)	0.417 0.461 0.460	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.003 0.003 0.003	0.5	Yes