



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 20th December 2018

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr Manzoor 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 however spots of grit visible at Hopper end. Hoppers 1 & 2 were full of effluent and needed draining down. Hopper 3 was empty.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were full of effluent and needed draining down.</p> <p>Tank 2A was empty and clean however areas near hopper end had areas covered by grit. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean, hoppers 1, 2 & 3 had all been drained down.</p> <p>Tank 3A and 3B were both empty and clean. Hoppers 1, 2 & 3 of both tanks had been drained 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 working.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6A & 6B were both being flushed at time of inspection and were over 20% full of effluent. All Amajets were in operations.

Tank 7A & 7B were both empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) of both tanks all needed draining down.

Tank 8A & 8B were both being flushed at time of inspection and were over 20% full of effluent. All Amajets were in operations.

All AMAJETS WERE IN ORDER – NO FAULTS

Feed Channel - The level of effluent in both feed channels was very murky in colour however at a low level along its entire length and bottomed out in places where grit was present.

Tanker cleans out the channel on a weekly basis

Complaints

The Council received no complaints via telephone or emails from either residents or MRAG in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 20th December 2018 at 12:05.

Monitor 1	0.004	ppm	11.05
Monitor 2	0.007	ppm	11.05
Monitor 3	0.005	ppm	11.05
Monitor 4	0.000	ppm	11.05
Monitor 5	0.006	ppm	11.05
Monitor 6	0.000	ppm	11.05
Monitor 7	0.007	ppm	11.05
Monitor 8	0.008	ppm	11.05
Monitor 9	0.000	ppm	11.05
Monitor 10	0.006	ppm	11.05

Monitor 11	0.009	ppm	11.05
Monitor 12	0.006	ppm	11.05
Monitor 13	0.007	ppm	11.05
Wind Speed	-	mph	11.05
Wind Direction	-	DEG	11.05

Odour Log (Thames)

Thursday 13th December 2018

AM

Temp. Cold .

Weather. Sunny with patchy clouds .

Odour Readings. All OMU's in operation.

Time: Blank

Observations / Customer Complaints OM3 had two spikes

0.021ppm @ 14.11-14.28

0.022ppm @ 14.41-14.58

Operational issues / causes observed OCU11 chemical dosing out of range. Carbon filter saturated.

Actions Taken. Blank.

PM

Temp. Freezing

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: Blank

Observations / Customer Complaint. OM3 had three spikes

0.021ppm @ 01.58 - 03.11

0.016ppm @ 21.43 - 22.43

0.015ppm @ 19.57 - 20.00

OM7 0.016ppm @ 03.46 - 04.01

Operational issues / causes observed. OCU11 chemical dosing out of range. Carbon filter saturated.

no.8b swt partially full. Amajets running.

Actions Taken. Blank

Friday 14th December 2018

AM

Temp. Cold

Weather. Cloudy w/ sunny spells.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM 3 Multiple spike/breaches.

0.024ppm @ 07.58-0900

0.024ppm @ 12.42-15.13

0.020ppm @ 15.42-15.58

Operational issues / causes observed. Area investigated. No odour detected. OCU11 discharging 329ppb from OCU stack according to instrumentation. Remedial works ongoing .

Actions Taken. Blank

PM

Temp. Cold

Weather. Clear night Rain

Odour Readings. All OMU's in use.

Time: 05:30

Observations / Customer Complaint. nothing to note from trends

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 15th December 2018

AM

Temp. Cold

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: Blank

Observations / Customer Complaint. OM5 one spike

0.019ppm @ 11.54-12.08.

Operational issues / causes observed. No odour identified. Less than 15 minutes

Actions Taken. Blank.

PM

Temp. Cool

Weather. Rain.

Time: Blank

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM5 spiked @ 22:08-22:50

max 0.031ppm and again @ 03:38-04:38 max 0.016ppm

Operational issues / causes observed. Area checked and no noticeable odours detected

Actions taken. Blank.

Sunday 16th December 2018

AM

Temp. Cool

Weather. Rain.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 spiked

0.027ppm @ 15.57-18.00

Operational issues / causes observed. No odour detected. Monitor still high at end of shift. OCU11 still discharging high odour.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Rain.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 spiked

max 0.024ppm @ 19:12

Operational issues / causes observed. No odour detected. Monitor still high at end of shift. OCU11 still discharging high odour.

Actions Taken. Blank.

Monday 17th December 2018

AM

Temp. Cool.

Weather. Sunny w/ Patchy Clouds

Time: 17:45

Odour Readings. All OMU's in operation.

Observations / Customer Complaint.. OM3 SPIKED

0.024ppm @ 16:30.

Operational issues / causes observed. OCU 11 SHOWING HIGH ODOURS.- AREA ROUND MONITOR CHECKED AND ALL OK

Actions Taken.

PM

Temp. Cool.

Weather. Overcast night

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 spiked to max 0.026

Operational issues / causes observed. OCU 11, area checked

Actions Taken. Blank.

Tuesday 18th December 2018

AM

Temp. Cool

Weather. Rain w/ Sunny Spells

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. NO ODOUR ISSUES

Operational issues / causes observed. NO ODOUR ISSUES

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:45.

Observations / Customer Complaint. NO ODOUR ISSUES

Operational issues / causes observed. No odour issues

Actions Taken: Blank

Wednesday 19th December 2018

AM

Temp. Cool.

Weather. Cloudy w/ Sunny Spells

Odour Readings. All OMU's in operation.

Time: 17:45.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. No odour issues.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM11 one spike

0.017ppm @ 01.22-02.22

OM5 one spike

0.016ppm @ 03.31-03.45

Operational issues / causes observed. Area checked. No odour identified. Waste gas burner on and off all night. CHP 3 unavailable therefore digester bell heights are up and down.

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					
13/11/18	155	1715	0	1870	2209	4079
14/11/18	206	1946	0	2152	2865	5017
19/11/18	225	2048	534	2807	1601	4408

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 20 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 – 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. There was evidence of a historic spill which needs cleaning (crusty-needs sweeping).

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 6 was in use and had a wet seal. There was evidence of a historic spill which needs cleaning (crusty needs sweeping). Due to uneven ground surface puddles had formed around Digester 6 due to previous rain fall. No odours or cause for concern.

Digester 7 was in use and had a dry seal. There was evidence of an historic spill which was dry and crusty in texture around the coping stone (crusty- needs a sweep).

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

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

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

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

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

Digesters 13 & 14 were both out of service.

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

Digester 16 was out of service

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

Digester 18 was in use and had a wet seal. No evidence of spillage

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

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

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 tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yd open bulk carrier that was empty.

One 12yd skip that was empty and uncovered.

On the West side there were No skips present.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screens are 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 entire 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 (fat free surfaces). PST 10 had an odour control system on trial whereby an odour neutraliser generated a mist over the Primary

settlement tank- only one PST was being used to trial this system. This was not in operation at the time of inspection. No odours were noticeable.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (4, 7 and 9).

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 appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing throughout its entire length. The channel serving aeration lanes 21, 22 & 23 were also free flowing.

Odour was not noticeable along the mixed liquor feed channel. TW advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 12/11/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.003	Unknown	Unknown

	0.003 0.004		
Main pumping station outlet	0.01 0.01 0.01	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	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Unknown
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.03 0.04 0.02	0.6	Yes
New West inlet (OCU 11)	0.04 0.04 0.03	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 12 th December 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 relatively clean. Hoppers 1, 2 & 3 were all full and needed draining down.</p> <p>Tank 1B was empty and relatively clean. Hoppers 1, 2 & 3 were all full and needed draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all approximately ¼ full and required further draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all approximately ¼ full and required further draining down.</p> <p>Tank 3B was empty and clean. Hoppers 1 & 2 were drained down, hopper 3 was approximately ¼ full and required further 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>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or</p> </div>

working.

Tank 6A was full and being returned at the time of the inspection. Amajets 1, 2 & 3 were all in operation.

Tank 6B had just been returned and the tank surface was covered in sludge. Hoppers 1 & 3 were full and hopper 2 was ½ full, all required draining down.

Tank 7A had just been returned and the tank surface was covered in sludge. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit & sludge and required cleaning up.

Tank 7B had just been returned and the tank surface was covered in sludge. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit & sludge and required cleaning up.

Tank 8A was just finishing being returned and still had a shallow level of effluent across 2/3 of its surface. Hoppers 1, 2 & 3 were all full.

Tank 8B was full and being returned at the time of the inspection. Amajets 1, 2 & 3 were all in operation.

Feed Channel - The level of effluent in both feed channels was very low along its entire length and bottomed out in places where grit was present.

Complaints

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

The Council received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Wednesday 12th December 2018 at 09:28.

Monitor 1	0.006	ppm	09:28
Monitor 2	0.005	ppm	09:28
Monitor 3	0.004	ppm	09:28
Monitor 4	0.004	ppm	09:28
Monitor 5	0.006	ppm	09:28
Monitor 6	0.004	ppm	09:28
Monitor 7	0.005	ppm	09:28
Monitor 8	0.005	ppm	09:28
Monitor 9	0.004	ppm	09:28
Monitor 10	0.005	ppm	09:28
Monitor 11	0.004	ppm	09:28
Monitor 12	0.005	ppm	09:28
Monitor 13	0.004	ppm	09:28
Wind Speed	Not displayed	mph	09:28
Wind Direction	Not displayed	°	09:28

Odour Log (Thames)

Thursday 6th December 2018

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odours.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues..
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Friday 7th December 2018

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM7 – 0.016 – 16:59-17:15.

Operational issues / causes observed. Digester 7 blowing wesso.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 8th December 2018

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 – 0.15 @ 15:40-16:43.

Operational issues / causes observed. Sean visited area. No odours detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.
Actions taken. Blank.

Sunday 9th December 2018

DAY SHIFT

Temp. Cool.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Monitor No.4 spiked at 19:58-20:10 <15 mins duration max 0.018, Monitor No.7 spiked at 01:30-01:45 max 0.020.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 10th December 2018

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 15:58.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. OM3 spiked to 0.020ppm at 15:58 till 17:13. Area round new west inlets and pat's no obvious odours found. OCU11 still not working properly.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked at 17:418:12 max 0.020, OM1 spiked at 19:00 but <10 mins duration.

Operational issues / causes observed. OCU11 not working correctly.

Actions Taken. Blank.

Tuesday 11th December 2018

DAY SHIFT

Temp. Cool.

Weather. Sunny with patchy spells.

Odour Readings. All OMU's in operation.

Time: 14:43.

Observations / Customer Complaint. OM3 spiked to max 0.027 at 14:43 through to end of shift.

Operational issues / causes observed. OCU11.

Actions Taken: Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions Taken: Blank.

Wednesday 12th December 2018

DAY SHIFT

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 – 0.021 @ 18:00-18:27, 0.022 @ 19:13-20:27, 0.016 @ 4:27-4:42.

Operational issues / causes observed. Scrubber 1 in service on OCU11.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked to max of 0.027.

Operational issues / causes observed. OCU11.

Actions taken: Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked to max of 0.019 @ 15:57-19:13, OM3 spiked to max 0.020 @ 19:28-19:42.

Operational issues / causes observed. Scrubber 1 in service on OCU11.

Actions Taken: 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					
06/12/18	0	2297	0	2297	2257	4554
10/12/18	0	1715	244	1959	1592	3551
12/12/18	225	2091	0	2316	2537	4853

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) – a noticeable quantity of water has accumulated to the brim of these tanks which is thick with algae – requires draining.

Digesters 5, 6, 7, 8, 9 & 10 were all in use but had a very wet seals that were bubbling off small amounts of gas.

It was noted that the bell height of digesters 7 & 8 were very high.

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digesters 11 & 12 were both in use and had very wet seals that were bubbling off small amounts of gas.

A Thames operative was hosing the area around the tank following a sludge spill.

Digesters 13 & 14 were both out of use. Sludge was noted around digester 13 although this may have spilled from digester 12.

Digester 15 was in use but had a very wet seal that was bubbling off gas and spitting. Thames advised this would be cleaned up.

Digester 16 was out of service

Digesters 17, 18, 19 & 20 were all in use but had very wet seals that were all bubbling off small amounts of gas.

It was noted that the bell heights of digesters 19 & 20 were very high.

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yds open bulk carrier that was empty and one 8yds skip that was empty.

In the area next to STW 1A there was one 8yds & one 12yds skip that both contained general non-inert rubbish. There was also a large open

skip, estimated to be approx 20yds, which again contained general inert rubbish.

On the access road leading to the digesters there was one 12yds skip that contained a small amount of rag and was partly covered with a tarpaulin, it was noted that the waste was not-odorous.

On the West side there were two 40yds closed bulk carriers that were both empty.

East Side Screen House

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

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing along its length.

Raw Sludge Screening House

The roller shutter door was closed at the time of the inspection. It was noted that there was considerable odour at the bottom of the road by the cross roads.

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 fat free surfaces.

The new odour suppression system around the perimeter of PST-10 was in operation and appeared to be functions efficiently

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered

Pasteurisation Plant

The pasteurisation plant is in service. TW advised all 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 appeared to be free flowing and the surface appeared much improved, all sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 21-24 (E Battery) were free flowing and much improved. However, lane-25 was clogged with debris and had a thick surface covering.

No odour was noticeable.

TW advised a tanker crew are regularly on site undertaking clearance of any clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 12/12/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.04 0.04 0.03	Unknown	Unknown
Main pumping station outlet	0.00 0.00	0.2	Yes

	0.00		
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	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.00 0.05 0.04	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



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>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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. 2ft 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.

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

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 "misters" 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



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 29 th November 2018	
Attendees: Mr A Devine (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. Hoppers 1 & 3 were approximately $\frac{3}{4}$ full of effluent. Hopper 2 was approximately $\frac{1}{4}$ full of effluent and needed draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1 2 & 3 were full of effluent and needed draining down.</p> <p>Tank 2A & 2B were empty and clean. Hoppers 1, 2 & 3 were all over $\frac{1}{2}$ full of effluent and some scum was noted on the top. The hoppers needed draining down.</p> <p>Tank 3A & 3B were empty. Hoppers 1, 2 & 3 of both tanks were over 50% full needed draining down. Tank 3B had some grit and needed cleaning. There was also a slight localised odour noted around Tank 3B.</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 working.</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6A & 6B were both being returned at time of inspection and were over 25% full of effluent. In tank 6A all Amajets were working. Only Amajet 1 was working in tank 6B.

Tank 7A & 7B were both being returned at time of inspection and were over 25% full of effluent. In both tanks Amajets 1 & 2 were working.

Tank 8A and 8B Appeared to have just been drained down. There was a very shallow amount of water covering the entire tank. A slight localised odour was noted around tank 8B.

Feed Channel - The level of effluent in both feed channels was very low and dark in colour.

Complaints

The Council received no complaints via email or telephone in the preceding week.

The Council received no complaints from MRAG in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 29th November 2018 at 10:00.

Monitor 1	0.007	ppm	10.00
Monitor 2	0.006	ppm	10.00
Monitor 3	0.000	ppm	10.00
Monitor 4	0.006	ppm	10.00
Monitor 5	0.007	ppm	10.00
Monitor 6	0.006	ppm	10.00
Monitor 7	0.006	ppm	10.00
Monitor 8	0.006	ppm	10.00
Monitor 9	0.005	ppm	10.00

Monitor 10	0.006	ppm	10.00		
Monitor 11	0.006	ppm	10.00		
Monitor 12	0.005	ppm	10.00		
Monitor 13	0.007	ppm	10.00		
Wind Speed	-	mph	10.00		
Wind Direction	-	°	10.00		

Odour Log (Thames)

Thursday 22nd November 2018

AM

Temp. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaints OM9 – 0.016ppm between 08.40am – 9.39am.

Operational issues / causes observed Digester 15 small spill – Area cleaned up.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank

Friday 23rd November 2018

AM

Temp. Cool.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 – 0.0024 between 16:11 to 16:32.

Operational issues / causes observed. Area checked.

Actions Taken. No actions no odours found.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues.
Actions Taken. Blank.

Saturday 24th November 2018

AM

Temp. Cold.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions taken. Blank.

Sunday 25th November 2018

AM

Temp. Cool

Weather. Cloudy with sunny spells.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

Monday 26th November 2018

AM

Temp. Cool.

Weather. Cloudy with sunny spells.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

Tuesday 27th November 2018

AM

Temp. Cold.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken: Blank.

Wednesday 28th November 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM3 - 0.017ppm between 13.38pm to 13.52pm and 0.021ppm between 15.53pm to 16.08pm.

Operational issues / causes observed. Area investigated. No odour detected.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No issues noticed.

Actions Taken: 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					
23/11/18	0	1466	328	1794	2594	4388
26/11/18	0	1860	885	2745	2594	5339
27/11/18	0	1321	61	1382	2266	3648

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 10 imports of sludge daily over the last week.

Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was slightly open 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, 6, 7, 8, 9 & 10 were all in use but had a very wet weak seals.

Tanker cleans out the channel on a weekly basis

Digester 11 was in use and had a dry seal.

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

Digesters 13 & 14 were both out of service.

Digester 15 was in use and had a wet seal. There was evidence of a spill on the coping stones which required cleaning. Thames Water advised that this would be done.

Digester 16 was out of service.

Digester 17 & 18 were both in use and had a good seals. No evidence of sludge spillage.

Digester 19 & 20 were both in use & had a weak wet seal. No evidence of spillage.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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 tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yd open bulk carrier and 1 6yd skip both were empty and uncovered.

At the storm tanks there were three 6yd skips which were full with general waste and uncovered and one 20yd bulk which was full with general waste and pipework and uncovered.

There was one general waste uncovered skip at the digester/sludge screening house.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screens are 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 (fat free surfaces). PST 10 had an odour control system on trial whereby an odour neutraliser generated a mist over the Primary settlement tank- only one PST was being used to trial this system. No odours were noticeable.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (4, 7 and 9).

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 appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing along its length. There was a small amount of sludge build up serving channel 24.

Thames Water advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 27/11/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.05 0.07 0.06	Unknown	Unknown
Main pumping station outlet	0.02 0.01 0.01	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	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown

Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet*	-	Unknown	Unknown
Transfer PS outlet*	-	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
*Thames Water recorded the following statement on the monitoring sheet 'Not working to dry'			



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 15th November 2018

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr W Janjua (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. Hoppers 1 2 & 3 were full of effluent and needed draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1 2 & 3 were full of effluent and needed draining down.</p> <p>Tank 2A & 2B were over 50% full of effluent and being flushed. All Amajets were in operations.</p> <p>Tank 3A & 3B tanks were empty and clean however hoppers 1, 2 & 3 of both tanks needed draining down. The tank needed a sweep at the hopper end (grit).</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 working.</p> <p>Tank 6A & 6B were both being flushed at time of inspection and were over 50% full of effluent. All Amajets were in operations.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 7A & 7B were both empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) of both tanks all needed draining down.

Tank 8A & 8B were both empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 of both tanks all needed draining down.

All AMAJETS WERE IN ORDER – NO FAULTS

Feed Channel - The level of effluent in both feed channels was very murky in colour however at a low level along its entire length and bottomed out in places where grit was present.

Complaints

The Council received one complaint via email from Maltings Way area of Isleworth on the 13th November 2018 at approximately 01:06 regarding foul odours in the air.

On the day of the inspection the Trends were observed for the time and date the complaint was received by LBH. OM1 measured at 0.006PPM and OM2 at 0.008 at approx. 01:06. The odour logs showed that the cool over cast night and TW had logged the shift as having no odour issues on site. The odour may have generated from the storm tank area of the works exacerbated by wind direction.

The complainant was advised that future complaints should be directed to the on call 24hour service in order for Officers to visit the area in an attempt to witness and action the odour at the time of the incident.

The Council received NO complaints via telephone or emails from MRAG in the preceding week.

Tanker cleans out the channel on a weekly basis

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing

data at time of inspection: Thursday 15th November 2018 at 12:05.

Monitor 1	0.004	ppm	12.05
Monitor 2	0.005	ppm	12.05
Monitor 3	0.004	ppm	12.05
Monitor 4	0.003	ppm	12.05
Monitor 5	0.005	ppm	12.05
Monitor 6	0.005	ppm	12.05
Monitor 7	0.004	ppm	12.05
Monitor 8	0.004	ppm	12.05
Monitor 9	0.004	ppm	12.05
Monitor 10	0.005	ppm	12.05
Monitor 11	0.004	ppm	12.05
Monitor 12	0.000	ppm	12.05
Monitor 13	0.005	ppm	12.05
Wind Speed	-	mph	12.05
Wind Direction	-	°	12.05

Odour Log (Thames)

Thursday 8th November 2018

AM

Temp. Warm.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaints Blank.

Operational issues / causes observed No odours issues.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM3 spiked twice. 03:24 to OM3 spiked to 0.021 (less than 15 minute duration) and again at 04:23 OM3 spiked to 0.026ppm (less than 15 mins).

Operational issues / causes observed. Area investigated, no odours identified. OCU11 discharging 745ppb via stack according to instrumentation. Chemical dosing out of range.

Actions Taken. Blank.

Friday 9th November 2018

AM

Temp. Cool.

Weather. Cloudy w/ sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 10:58 to 0,036ppm (less than 15 minute duration).OM3 spiked at 07:48 maximum 0.024ppm (less than 15 minute duration).

Operational issues / causes observed. Blank.

Actions Taken. No odours found or detected while checking areas.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in use.

Time: 05:00.

Observations / Customer Complaint. OM5 spiked to 0.023ppm at 03:15- 04:15 (more than 15 mins duration).

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 10th November 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM6 spiked at 15:18 to 0.019ppm (less than 15 minute duration).

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Warm

Weather. Rain.

Time: 05:00.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Sunday 11th November 2018

AM

Temp. Cool

Weather. Rain with sunny spells.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.
Time: 05:30.
Odour Readings. All OMU's in operation.
Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues.
Actions Taken. Blank.

Monday 12th November 2018

AM

Temp. Cool.
Weather. Rain with sunny spells.
Time: 17:30.
Odour Readings. All OMU's in operation.
Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues.
Actions Taken. Breaks in trend for OM2?

PM

Temp. Cool.
Weather. Clear night.
Time: 05:30.
Odour Readings. All OMU's in operation.
Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues.
Actions Taken. Blank.

Tuesday 13th November 2018

AM

Temp. Cool.
Weather. Sunny w/patchy clouds.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. Blank.
Operational issues / causes observed. No odour issues.
Actions Taken: Blank.

PM

Temp. Cool.
Weather. Overcast night.
Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken: Blank.

Wednesday 14th November 2018

AM

Temp. Warm.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. OM3 multiple spikes throughout the shift - maximum spike reading 0.045ppm.

Actions Taken: OCU No 11 not performing.

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					
10/11/18	0	1485	244	1729	3226	4955
13/11/18	0	1546	122	1668	2266	3934
14/11/18	0	1673	412	2086	2594	4679

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 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 – 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. There was evidence of a historic spill which needs cleaning (crusty-needs sweeping).

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 6 was in use and had a dry seal. There was evidence of a historic spill which needs cleaning (crusty needs sweeping).

Digester 7 was in use and had a dry seal. There was evidence of an historic spill which was dry and crusty in texture- needed cleaning (crusty- needs sweeping).

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

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

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

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

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

Digesters 13 & 14 were both out of service.

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

Digester 16 was out of service

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

Digester 18 was in use and had a wet seal. No evidence of spillage

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

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

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yd open bulk carrier that was empty. Two 14yds skips that were empty and uncovered. On the West side there were No skips present.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are 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 (fat free surfaces). PST 10 had an odour control system on trial whereby an odour neutraliser generated a mist over the Primary settlement tank- only one PST was being used to trial this

system. No odours were noticeable.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (2, 7 and 11).

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 appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing in places and thick and sludgy in places.

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

Odour was not noticeable along the mixed liquor feed channel and TW advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 12/11/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	- -	Unknown	Unknown

	-		
Main pumping station outlet	0.01 0.01 0.01	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	-	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.01 0.02 0.01	0.6	Yes
New West inlet (OCU 11)	0.03 0.02 0.03	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 8 th November 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Waleed Janjua (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 - approximately 50% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean. Hoppers 1, 2 & 3 approximately 50% full – require draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean - Hopper 1 approximately 80% full, Hopper 2 approximately 50% full and Hopper 3 drained down to bottom.</p> <p>Tank 2B – Tank recently returned – whole tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 80% full - requires draining/over-pumping.</p> <p>Tank 3A – Tank empty and flushed clean -- Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank recently returned – whole tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

bottom.

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working. Window hatch removed to enable access for over-pumping – requires replacement.

Tank 6A – Tank empty and flushed - Hoppers 1, 2 & 3 drained down to bottom level.

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

Tank 7A – Tank recently returned – whole of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom.

Tank 7B – Tank recently returned – whole of tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hopper 1, 2 & 3 approximately 75% full – requires draining/over-pumping.

Tank 8B – Tank empty and flushed - approximately 25% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1 & 2 approximately 80% full. Hopper 3 empty.

Feed Channel - The level of effluent in both feed channels was approximately 30-40% – 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	0.007	ppm	13:08
Monitor 2	0.010	ppm	13:08
Monitor 3	0.003	ppm	13:08
Monitor 4	0.006	ppm	13:08
Monitor 5	0.006	ppm	13:08
Monitor 6	0.008	ppm	13:08
Monitor 7	0.008	ppm	13:08
Monitor 8	0.008	ppm	13:08
Monitor 9	0.005	ppm	13:08
Monitor 10	0.007	ppm	13:08
Monitor 11	0.007	ppm	13:08
Monitor 12	0.006	ppm	13:08
Monitor 13	0.007	ppm	13:08
Wind Speed	8	mph	
Wind Direction	209°		

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

Thursday 1st November 2018:

AM – Cool - Rain

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues. Nothing of note on trends."

Actions: None noted.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 – 0.016 @ 21:45-22:45. OM8 0.016 @ 19:13-21:13."

Operational Issues/Causes: "No issues."

Actions: "Aram visited areas nothing found."

Friday 2nd November 2018:

AM – Cool – Sunny w/Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM3 0.021ppm 13:09-13:24, OM3 0.021ppm 14:24-14:39."

Operational Issues/Causes: "OCU11 chemical dosing out of range. Recirculation pumps not available."

Actions: "None noted."

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues."

Actions: None noted.

Saturday 3rd November 2018:

AM – Cool – Sunny w/Patchy Clouds.

All OMU's in use.

Observations/Complaints: "None noted."

Operational Issues/Causes: "No odour issues. No spikes on trends."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues."

Actions: None noted.

Sunday 4th November 2018:

AM – Cool – Sunny w/Patchy Clouds.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues. Nothing of note on trends."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "om 3 spiked multiple times through night to a max of 0.045 @ 02:10 for 1 hour."

Operational Issues/Causes: "OCU11 chemical dosing out of range. Recirculation pumps not available. Output at exhaust showing 767ppm. Area checked for odours. No significant smells detected."

Actions: None noted.

Monday 5th November 2018:

AM – Warm – Sunny w/ Patchy Clouds.

OMU - All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "om 3 spiking through night to max of 0.055 @ 02:10 for 1 hour."

Operational Issues/Causes: "OCU11 chemical dosing out of range. Recirculation pumps not available. Output at exhaust showing 767ppm. Area checked for odours. No significant smells detected."

Actions: None noted.

Tuesday 6th November 2018:

AM – Warm – Cloudy.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues."

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "OM3 spike 0.025ppm 03:10-04:25."

Operational Issues/Causes: "No odour identified in the area. OCU11 chemical dosing out of range."

Actions: None noted.

Wednesday 7th November 2018:

AM – Warm – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "No odour issues."

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: "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					
05/11/18	0	1162	801	1963	4428	6391
06/11/18	0	1449	0	1449	5093	6542
07/11/18	0	1546	389	1935	2902	4837

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. 3ft below coping stones – seal weak and bubbling. Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 6 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling – Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 7 - in use – seal level approx. 3ft below coping stones – good seal.

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

Digester 8 – in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling. Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 10 – in use – seal level approx. 1ft below coping stones – seal weak and bubbling – evidence of recent spill – requires anti-foam and clean-up.

Digester 11 - in use – seal level approx. 1ft below 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 – good seal.

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 around whole tank – 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 – good seal.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal.

Digester 19 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

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

Approximately six weeks ago experienced complete failure of “auto-dosing” system for anti-foam agent to all digesters – relevant parts for repair have proven difficult to source and process has taken a number of weeks to complete – this has resulted in additional anti-foam being required to be manually added to each tank daily – the dosing of which has proven difficult to achieve which has decreased the quality of the Digester seals and has increased the number of spit/spill incidents. Large quantity of full and empty small canisters of anti-foam located around Digesters.

GENERAL

Sludge Screening House

Shutter doors open at time of inspection – contractors on site replacing flooring throughout whole building.

Imported Sludge

Estimated average of ten 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 large open empty general waste skip containing 1x 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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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.

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.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

Pasteurisation Plant

All 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 totally obstructed – requires jetting.

Condition of Tanks improved markedly since last inspection - “fluffy” coverage across surface completely removed and quantity of physical detritus in tank bypassing screener also reduced.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (05/11/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.123 0.116 0.100	Unknown	Unknown
Main pumping station outlet	0.000 0.000 0.000	0.2	Yes
East OCU	0.000 0.000 0.000	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	0.000 0.000 0.000	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)	0.121 0.118 0.118	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 1 st November 2018	
Attendees: Mr A Devine (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 relatively clean but had dry residue at the hopper end of the tank. Hopper 1, 2 and 3 were approximately <math>\frac{1}{4}</math> full and required further draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all approximately 10% full.</p> <p>Tank 2A was empty and relatively clean but had dry residue at the hopper end of the tank. Hopper 1, 2 and 3 were drained down.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all approximately $\frac{3}{4}$ full and required draining down.</p> <p>Tank 3A was empty and clean. Hopper 1 was approximately $\frac{3}{4}$ full, Hoppers 2 and 3 were approximately $\frac{1}{4}$ full. All Hoppers required draining down.</p> <p>Tank 3B was empty and relatively clean but had dry residue at the hopper end of the tank. Hopper 1 was approximately $\frac{3}{4}$ full, Hopper 2 was approximately $\frac{1}{4}$ full and Hopper 3 was approximately $\frac{1}{2}$ full. All</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Hoppers required draining down.

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 was empty and clean. Hopper 1 was approximately $\frac{3}{4}$ full, Hoppers 2 and 3 were approximately $\frac{1}{2}$ full. All Hoppers required draining down.

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all approximately $\frac{3}{4}$ full and had a slight scum forming on the surface. All the Hoppers required draining down.

Tank 7A was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 7B was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 8A was clean and empty. Hoppers 1, 2 & 3 were all approximately $\frac{3}{4}$ full and required draining down.

Tank 8B was clean and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 were all full and required draining down.

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

Complaints

The Council received one complaint by telephone in the preceding week.

On the 30th October 2018 at 13:39 a telephone complaint was received from a resident of Mogden Lane, Isleworth, which is located to the southeast of the works (ref: 978205). The complainant was contacted

at 13:51 and after confirming odour was still causing an issue the duty officer agreed to visit the area as soon as possible. A visit was made to Mogden Lane at approx. 14:30 and H2S sampling was carried which gave average readings of 0.000ppm. The subjective assessment confirmed excessive odour was not present. The historic odour monitoring trends around the time of the complaint showed no excessive readings on odour monitors 1 to 13. A letter was sent out to the complainant on the 30th October 2018 advising details of the site visit along with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

The Council received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 1st November 2018 at 12:50.

Monitor 1	0.004	ppm	12:50
Monitor 2	0.005	ppm	12:50
Monitor 3	0.004	ppm	12:50
Monitor 4	0.008	ppm	12:50
Monitor 5	0.005	ppm	12:50
Monitor 6	0.004	ppm	12:50
Monitor 7	0.005	ppm	12:50
Monitor 8	0.005	ppm	12:50
Monitor 9	0.004	ppm	12:50
Monitor 10	0.003	ppm	12:50
Monitor 11	0.004	ppm	12:50
Monitor 12	0.003	ppm	12:50
Monitor 13	0.005	ppm	12:50
Wind Speed	2.000	mph	12:50
Wind Direction	283.000	°	12:50

Odour Log (Thames)

Thursday 25th October 2018

AM

Temp. Warm.

Weather. Sunny w/ Patchy Clouds.

Odour Readings. All OMU's in operation.

Time: 18:00.

Observations / Customer Complaint. 17:28-17:55 Reading of 0.021ppm OM2.

Operational issues / causes observed. General odour. No particular sources found.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM8 18:21-18:35 Reading 0.019ppm, OM8 20.08-21.03 Reading 0.016ppm

Operational issues / causes observed. OM3 21:31-21:54 Reading 0.021ppm, OM3 04.54-.5.09 Reading 0.023ppm

Actions Taken. No issues found out on site that could potentially cause odour.

Friday 26th October 2018

AM

Temp. Warm.

Weather. Sunny w/ Patchy Clouds.

Odour Readings. All OMU's in operation.

Time: 17:30

Observations / Customer Complaint. OM3 - 0.028ppm at 06.02 2 short spikes. OM8 - 0.016ppm at 15.47 1 short spike.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 00:00.

Observations / Customer Complaint. Monitor No.8 spiked at 18:46-19:13 max 0.028ppm and at 02:31-12:43 max 0.017ppm but < 15 mins duration.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 27th October 2018

AM

Temp. Cold.

Weather. Cloudy w/ Sunny Spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. OM3 0.022ppm at 12:33 – 13:01. OM3 0.023ppm at 13:18 – 13:31

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Multiple spikes from OMU No.3 throughout the shift. Various magnitudes and lengths min 0.015 ppm - max of 0.043ppm

Operational issues / causes observed. OCU No.11 performance below par

Actions taken. Reported.

Sunday 28th October 2018

AM

Temp. Cold.

Weather. Cloudy w/ Sunny Spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 - Multiple spikes throughout the shift.

Operational issues / causes observed. OM3 visited at 8.15. Wind direction from west inlet.

Actions Taken. No odour detected. Windy.

PM

Temp. CoLD.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 - Multiple spikes throughout the shift from midnight onwards.

Operational issues / causes observed. Only available extraction fan keeps tripping? Vibration

Actions Taken. Reported.

Monday 29th October 2018

AM

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiking throughout night shift max at 0.033ppm

Operational issues / causes observed. OCU 11 extractor fan constantly tripping on low flow?

Actions Taken. Reported again.

Tuesday 30th October 2018

AM

Temp. Cool.

Weather. Sunny w/ Patchy Clouds.

Odour Readings. All OMU's in operation.

Time: 00:00.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. Blank.

Actions Taken: Blank.

PM

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.031ppm at 18:31 – 18:59

Operational issues / causes observed. No operational issues.

Actions Taken: Blank.

Wednesday 31st October 2018

AM

Temp. Cool.

Weather. Sunny w/ Patchy Clouds.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM3 spiking to max of 0.024ppm between 06:55-07:54.

Operational issues / causes observed. Area checked around PST's 21-25 no obvious odours found, OCU 11 needs attention management aware.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.022ppm at 19.31 - 22.44. OM3 - 23.31 - 23.44. OM3 0.024ppm - 03.31 to 05.15.

Operational issues / causes observed. No source found.

Actions Taken: Blank.

Observations / Customer Complaint. OM8 0.025ppm 19:51-20:15.

Operational issues / causes observed. OCU 11. wind 71o from west inlet over OCU11 to OM3

Actions Taken: Reported.

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					
25/10/18	0	909	0	909	1264	2173
26/10/18	60	905	61	1026	1929	2955
31/10/18	340	717	244	1301	1905	3206

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.

Digesters 5 to 11 were in use but had a very wet seals that were bubbling off small amounts of gas.

Digester 12 was in use and had a good dry seal but it was noted to be very high.

Digesters 13 & 14 were both out of service.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 15 was in use but had a very wet seal that was bubbling off small amounts of gas. There was evidence of an historic spill.

Digester 16 was out of service

Digesters 17 and 18 were in use and had good dry seals.

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

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

Thames Water advised that digesters had been foaming due to anti-foam issues. Thames Water advised that this has now been resolved.

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yds open bulk carrier that was empty and uncovered.

On the access road leading to the digesters there was one 12yds skip that contained a small amount of rag and was partly covered with a tarpaulin, it was noted that the waste was not-odorous.

On the West side there was no skips.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are in operation. A small amount of general waste and pipework was noted outside on the tarmac.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was 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 10, 11 & 12 were all in operation at the time of the inspection. PST's 10 & 11 had fat free surfaces but PST 12 had fatty scum across approx 40% of the tanks surface.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 8 of the 12 streams are currently 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 appeared to be free flowing and the surface appeared much improved, all sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) were free flowing and much improved

No odour was noticeable.

TW advised a tanker crew are regularly on site undertaking clearance of any clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 31/10/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.11 0.10 0.11	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.01	0.2	Yes
East OCU	0.00 0.01 0.00	0.05	Yes
West inlet OCU	0.01 0.02 0.01	0.05	Yes
Sludge reception inlet	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	-	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)	0.01 0.02 0.00	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 25 th October 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 relatively clean but had dry residue at the hopper end of the tank. Hopper 1 was approximately $<1/4$ full and required further draining down. Hoppers 2 & 3 were drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all approximately $2/3$ full and required draining down.</p> <p>Tank 2A was empty and relatively clean but had dry residue at the hopper end of the tank. Hopper 1 was approx $<1/4$ full and required further draining down. Hoppers 2 & 3 were drained down.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all approximately $1/2$ full and required draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all approximately $1/4$ full and required draining down.</p> <p>Tank 3B was empty and clean. Hopper 1 was $2/3$ full, hopper 2 was approximately $<1/4$ full, both required draining down. Hopper 3 was drained down.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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 was empty and clean. Hoppers 1, 2 & 3 were all approximately 1/3 full and required draining down.

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all approximately 2/3 full and required draining down.

Tank 7A was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 7B was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 8A was clean and empty. Hoppers 1, 2 & 3 were all approximately 1/3 full and required draining down.

Tank 8B was clean and empty. Hoppers 1, 2 & 3 were all full and required draining down.

Feed Channel - The level of effluent in both feed channels was very low along its entire length and bottomed out in places where grit was present.

Complaints

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

The Council received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 25th October 2018 at 12:20.

Monitor 1	0.006	ppm	12:20
Monitor 2	0.005	ppm	12:20
Monitor 3	0.004	ppm	12:20
Monitor 4	0.004	ppm	12:20
Monitor 5	0.006	ppm	12:20
Monitor 6	0.004	ppm	12:20
Monitor 7	0.005	ppm	12:20
Monitor 8	0.005	ppm	12:20
Monitor 9	0.004	ppm	12:20
Monitor 10	0.005	ppm	12:20
Monitor 11	0.004	ppm	12:20
Monitor 12	0.005	ppm	12:20
Monitor 13	0.004	ppm	12:20
Wind Speed	3.000	mph	12:20
Wind Direction	287.000	°	12:20

Odour Log (Thames)

Thursday 18th October 2018

AM

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.
Odour Readings. All OMU's in operation.
Time: Blank.
Observations / Customer Complaint. Blank
Operational issues / causes observed. No odour issues.
Actions Taken. Blank.

Friday 19th October 2018

AM

Temp. Cool.
Weather. Sunny w/patchy clouds.
Odour Readings. All OMU's in operation.
Time: Blank.
Observations / Customer Complaint. OM3 05:53-06:09 0.023ppm max.
Operational issues / causes observed. No source found.
Actions Taken. Blank.
Observations / Customer Complaint. OM4 08:08-08:22 0.020ppm max. OM9 15:55-16:08 0.017ppm; 16:57-17:09 0.016ppm.
Operational issues / causes observed. High bell heights-flaring part of day.

PM

Temp. Cool.
Weather. Clear night.
Odour Readings. All OMU's in use.
Time: Blank.
Observations / Customer Complaint. OM9 18:11-18:55 0.015ppm & 19:26-19:55 0.018ppm.
Operational issues / causes observed. No odour identified. Digester bell height 27 metres. Waste gas burner on.
Actions Taken. Blank.

Saturday 20th October 2018

AM

Temp. Warm.
Weather. Sunny with patchy cloud.
Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM5 0.020ppm 08:19-08:35.

Operational issues / causes observed. No source identified.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM5 21:20-21:50 0.022ppm & 22:50-23:05 0.020ppm.

Operational issues / causes observed. No odour identified after carrying out site walk around.

Actions taken. Blank.

Sunday 21st October 2018

AM

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM8 0.032ppm 12:52-13:08.

Operational issues / causes observed. No odour identified.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM4 0.017ppm 18:09-18:38.

OM8 0.020ppm 18:22-18:37. OM9 0.018ppm 18:55-19:08 & 0.018ppm 19:40-19:54. OM3 0.024ppm 03:24-03:38.

Operational issues / causes observed. Pas area quite odourous. Unable to identify exact source. No sludge spills. Sludge screening building shutter closed. OCU12 running. OCU11 running but chemical dosing out of range.

Actions Taken. Blank.

Monday 22nd October 2018

AM

Temp. Warm.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM5 0.030ppm 23:35-23:50 & 0.022ppm 01:35-01:50.

Operational issues / causes observed. Investigated the area around monitor 5. No odour detected.

Actions Taken. Blank.

Tuesday 23rd October 2018**AM**

Temp. Warm.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM1 spiked at 16:53, max 0.018ppm. OM3 spiked at 10:23-10:36 but <15 mins duration. OM3 spiked at 16:23-16:35, max 0.027ppm. OM8 spiked at 15:50-16:06, max 0.024ppm.

Operational issues / causes observed. Odour appears to be coming from Pas/thickening area but unable to pin point issue.

Actions Taken: Reported.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM3 0.018ppm 17:54-18:07, 0.026ppm 20:53-22:24, 0.019ppm 02:26-02:39

Operational issues / causes observed. OCU11 still u/s-chemical scrubbers. Some smell from PAS area.

Actions Taken: Blank.

Observations / Customer Complaint. OM8 0.016pp, 19:07-19:21.

Operational issues / causes observed. Blank.

Actions Taken: Blank.

Wednesday 24th October 2018

AM

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM8 0.020ppm 12:37-12:51.

Operational issues / causes observed. No source identified.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM2 0.019ppm 21:19-21:40,
0.019ppm 00:23-00:42.

Operational issues / causes observed. No source found.

Actions Taken: Blank.

Observations / Customer Complaint. OM8 0.025ppm 19:51-20:15.

Operational issues / causes observed. No source identified.

Actions Taken: Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
22/10/18	40	783	0	823	1440	2263
23/10/18	0	1031	0	1031	1440	2471
24/10/18	0	886	0	886	784	1670

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.

Digesters 5 & 6 were both in use but had a very wet seals that were bubbling off small amounts of gas.

Digester 7 was in use and had a good dry seal.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digesters 8, 9, 10, 11 & 12 were all in use but had a very wet seals that were all 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

Digesters 17, 18, 19 & 20 were all in use but had very wet seals that were all bubbling off small amounts of gas.

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yds open bulk carrier that was full of grit and covered.

In the area next to STW 1A there was one 8yds & one 12yds skip that both contained general non-inert rubbish. There was also a large open skip, estimated to be approx 20yds, which again contained general inert rubbish.

On the access road leading to the digesters there was one 12yds skip that contained a small amount of rag and was partly covered with a tarpaulin, it was noted that the waste was not-odorous.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

On the West side there was no skips.

East Side Screen House

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

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was 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 10, 11 & 12 were all in operation at the time of the inspection. PST 9 was in the process of being drained down and taken out of service for maintenance.

PST's 10 & 11 had fat free surfaces but PST 12 had fatty scum across approx 40% of the tanks surface.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 8 of the 12 streams are currently 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 appeared to be free flowing and the surface appeared much improved, all sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) were free flowing and much improved
 No odour was noticeable.
 TW advised a tanker crew are regularly on site undertaking clearance of any clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 22/10/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.00 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.01 0.01	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	-	Unknown	Unknown
Sludge reception outlet	-	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.01 0.02 0.00	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown

Transfer PS outlet	0.03 0.02 0.01	0.6	Yes	
New West inlet (OCU 11)	0.00 0.01 0.00	0.5	Yes	
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 11 th October 2018	
Attendees: Mr Zaheer Kadri (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. Hoppers 1 2 & 3 were all empty and had been drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all approximately <¼ full and required further draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down to virtually their bottom levels.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all empty. The tank needed a sweep - some grit present at hopper end.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all empty. The tank needed a sweep at the hopper end (grit).</p> <p>Tank 3B was empty and clean. Hoppers 1 & 3 were empty however hopper 2 needed further draining down. The tank needed a sweep some grit present at the hopper end.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

all empty. Unable to gauge condition as lighting system still not working.

Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all drained down to virtually their bottom levels.

Tank 6B was 20% full of affluent and required flushing.

Tank 7A was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all needed draining down.

Tank 7B was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all needed draining down.

Tank 8A was empty and clean. Hoppers 1, 2 & 3 were all drained down to virtually their bottom levels.

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all drained down to virtually their bottom levels.

All AMAJETS WERE IN ORDER – NO FAULTS

Feed Channel - The level of effluent in both feed channels was very murky in colour and low along its entire length and bottomed out in places where grit was present.

Complaints

The Council received NO complaints by telephone in the preceding week.

The Council received NO complaints by email in the preceding week.

The Council received NO complaints by email from MRAG.

Tanker cleans out the channel on a weekly basis

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 11th October 2018 at 13:05.

Monitor 1	0.007	ppm	13.05
Monitor 2	0.003	ppm	13.05
Monitor 3	0.000	ppm	13.05
Monitor 4	0.000	ppm	13.05
Monitor 5	0.005	ppm	13.05
Monitor 6	0.005	ppm	13.05
Monitor 7	0.005	ppm	13.05
Monitor 8	0.005	ppm	13.05
Monitor 9	0.004	ppm	13.05
Monitor 10	0.005	ppm	13.05
Monitor 11	0.000	ppm	13.05
Monitor 12	0.000	ppm	13.05
Monitor 13	0.000	ppm	13.05
Wind Speed	7.000	mph	13.05
Wind Direction	183.000	°	13.05

Odour Log (Thames)

Thursday 4th October 2018

AM

Temp. Warm.

Weather. Cloudy w/ sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked to 0.023ppm for less than 15 mins.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 Spiked between 04:06-05:06, max 0.022ppm, less than 15 mins.

Operational issues / causes observed. OCU11 out of range, checked area for any other issues-none found.

Actions Taken. Blank

Friday 5th October 2018

AM

Temp. Warm.

Weather. Cloudy w/ sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. No odour issues.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM2 0.027ppm 23:47-23:59 less than 15 mins.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 6th October 2018

AM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions taken. Blank.

Sunday 7th October 2018

AM

Temp. Warm

Weather. Sunny.

Time: 17:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Storm tanks returning from yesterday's rain

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Overcast night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM5 0.025ppm 21:33-21:45, less than 15 mins.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 8th October 2018

AM

Temp. Cool.

Weather. Sunny with patchy clouds.

Time: 17:30

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 0.043ppm at 14.36-15.04 & OM3 0.047ppm at 16.36-16.49.

Operational issues / causes observed. OCU11 possible cause output = 501ppb.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Time: 05:30.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM5 0.019ppm 18:18-18:33.

Operational issues / causes observed. No source found.

Actions Taken. Blank.

Tuesday 9th October 2018

AM

Temp. Warm.

Weather. Sunny w/ patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked to a max of 0.026ppm at 01:53 and continued spiking through night.

Operational issues / causes observed. Ridge aluminium missing from some PSTs 21 to 25 but no obvious odours in area found.

Actions Taken: Blank

Wednesday 10th October 2018

AM

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:45.

Observations / Customer Complaint. OM3 spike 0.022ppm 06:22-06:36.

Operational issues / causes observed. No odour identified.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked to 0.029ppm at 20:23-22:20. OM3 spiked to 0.024ppm at 04:08.

Operational issues / causes observed. Area checked round PST's no odour identified.

Actions Taken: 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					
08/10/18	1158	1134	0	2292	1416	3708
09/10/18	0	328	813	1141	2266	3407
10/10/18	0	737	474	1211	1815	3026

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 12 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 – 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. There was evidence of a historic spill which needs cleaning (crusty needs sweeping).

Digester 6 was in use but had a very wet seal. There was evidence of

LBH notified

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

a historic spill which needs cleaning (crusty needs sweeping).

Digester 7 was in use but had a very wet seal. There was evidence of a historic spill which needs cleaning (crusty needs sweeping).

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. There was some evidence of a historic spillage.

Digester 10 was in use but had a very wet seal that was bubbling off small amounts of gas. There was also evidence of a historic spillage.

Digester 11 was in use but had a very wet seal that was bubbling off small amounts of gas. There was also evidence of a historic spill which needs cleaning.

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.

Digester 16 was out of service

Digester 17 was in use but had a wet seal.

Digester 18 was in use but had a wet seal.

Digester 19 was in use but had a wet seal.

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yds open bulk carrier that was empty.

Two 14yds skips that were empty and one 8yds skip that was covered which contained rag.

In the area around the walkway leading to the STW 1A there was one 8yds & one 12yds skip that both contained general inert material.

On the access road leading to the digesters there was one 12yds skip that contained a small amount of rag and was partly covered with a tarpaulin, it was noted that the waste was not-odorous.

On the West side there were No skips present.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are 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)

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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 (fat free surfaces).

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3/12 streams were out of operation (2, 7 and 11).

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 appeared to be free flowing and the surface appeared much improved.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was free flowing in places and thick and sludgy in places.

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

Odour was not noticeable along the mixed liquor feed channel and TW advised that a tanker crew are regularly on site undertaking clearance of the clogged areas (Celvac).

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 10/10/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	- - -	Unknown	Unknown
Main pumping station outlet	0.0722 0.0725 0.0726	0.2	Yes
East OCU	0.004 0.004 0.004	0.05	Yes
West inlet OCU	0.028 0.027 0.006	0.05	Yes
Sludge reception inlet	-	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.234 0.231 0.229	0.6	Yes
Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.212 0.215 0.246	0.6	Yes
New West inlet (OCU 11)	0.165 0.147 0.154	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.0003 0.0003 0.0003	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 3 rd October 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. Hoppers 1 2 & 3 were all approximately <math>\frac{1}{4}</math> full and required further draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all approximately <math>\frac{1}{4}</math> full and required further draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down to virtually their bottom levels.</p> <p>Tank 2B was empty and clean. Hoppers 1 & 2 were approximately $\frac{1}{3}$ full, hopper 3 was approximately <math>\frac{1}{4}</math> full. All hoppers required draining down.</p> <p>Tank 3A was empty and clean. Hopper 1 was approximately $\frac{1}{4}$ full, hoppers 2 & 3 were approximately <math>\frac{1}{4}</math> full. All hoppers required draining down.</p> <p>Tank 3B was empty and clean. Hopper 1 was $\frac{1}{3}$ full, hopper 2 was approximately <math>\frac{1}{4}</math> full, both required draining down. Hopper 3 was drained down to virtually the bottom level.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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 was empty and clean. Hoppers 1 & 2 were drained down to virtually their bottom levels. Hopper 3 was approximately $< \frac{1}{4}$ full.

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all at least $\frac{1}{3}$ full and required draining down.

Tank 7A was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 7B was empty and relatively clean, but had dry grit on the surface of the tank at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) all contained large quantities of grit and required cleaning up.

Tank 8A was clean and empty. Hopper 1 was $\frac{1}{2}$ full, hoppers 2 & 3 were both $\frac{1}{3}$ full. All hoppers required draining down.

Tank 8B was clean and empty. Hoppers 1 & 3 were full, hopper 2 was $\frac{1}{3}$ full. All required draining down.

Feed Channel - The level of effluent in both feed channels was very low along its entire length and bottomed out in places where grit was present.

Complaints

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

The Council received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 3rd October 2018 at 13:05.

Monitor 1	0.005	ppm	13.05
Monitor 2	0.000	ppm	13.05
Monitor 3	0.000	ppm	13.05
Monitor 4	0.004	ppm	13.05
Monitor 5	0.007	ppm	13.05
Monitor 6	0.005	ppm	13.05
Monitor 7	0.004	ppm	13.05
Monitor 8	0.005	ppm	13.05
Monitor 9	0.003	ppm	13.05
Monitor 10	0.003	ppm	13.05
Monitor 11	0.000	ppm	13.05
Monitor 12	0.000	ppm	13.05
Monitor 13	0.000	ppm	13.05
Wind Speed	6.000	mph	13.05
Wind Direction	262.000	°	13.05

Odour Log (Thames)

Thursday 27th September 2018

AM

Temp. Warm.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues found or reported, no spikes on trends.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30

Observations / Customer Complaint. OM5 (18.17-18.33 0.016ppm)
(21.03-22.03 0.015ppm) (22.18-22.33 0.019ppm)

Operational issues / causes observed. Multiple spikes around monitor 5. Unable to identify any odour or potential source of odour.

Actions Taken. Check calibration of monitor.

Observations / Customer Complaint. OM3 (03.37-04.37 0.024ppm)
(5.07-5.22 0.022ppm)

Operational issues / causes observed. OCU11 chemical dosing out of range on scrubbers 1 & 2. PST's 22 & 23 being pumped out.

Actions Taken. Blank.

Friday 28th September 2018

AM

Temp. Cool.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. OCU11 chemical dosing still out of range on scrubbers 1 & 2.

Actions Taken. Blank.

PM Rain.

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 29th September 2018

AM

Temp. Warm.

Weather. Sunny with patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM4 spiked 09.13-09.25 max 0.031ppm but <15 mins duration.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Observations / Customer Complaint. OM5 spiked at 14.40-14.53 max 0.018ppm but <15 mins duration.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 0.021ppm 00.50-1.15.

Operational issues / causes observed. OCU11 chemical dosing still out of range of scrubbers 1 & 2.

Actions taken. Blank.

Sunday 30th September 2018

AM

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 1st October 2018

AM

Temp. Cool.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.
Observations / Customer Complaint. No odour issues.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

PM

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Observations / Customer Complaint. OM3 spiked at 22.38-23.06
max 0.020ppm.

Operational issues / causes observed. Roof apex missing from roof,
small odour coming from PST's

Actions Taken. Blank.

Observations / Customer Complaint. OM3 spiked at 04.08-04.53
max 0.023ppm.

Operational issues / causes observed. Roof apex missing from roof,
small odour coming from PST's

Actions Taken. Blank.

Tuesday 2nd October 2018

AM

Temp. Cool.

Weather. Sunny with patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.022ppm 13.47-13.59.

Operational issues / causes observed. No source found.

Observations / Customer Complaint. OM3 0.022ppm 11.52-12.04.

Operational issues / causes observed. OCU11 chemical scrubbers
still not working properly.

Actions Taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 multiple spikes:

20.05-20.18 max 0.019ppm but <15 mins duration.

21.35-21.48 max 0.024ppm but <15 mins duration.

23.05-23.18 max 0.021ppm but <15 mins duration.
01.35-02.03 max 0.026ppm, 04.05-04.48 max 0.023ppm.
Operational issues / causes observed. OCU11 chemical scrubbers still not working properly.
Actions Taken: Reported.

Wednesday 3rd October 2018

AM

Temp. Cool.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 many spikes

0.027ppm 09.50-10.03

0.018ppm 15.35-15.48

0.023ppm 17.05-17.18

Operational issues / causes observed. OCU11 chemical scrubbers still not working properly.

Observations / Customer Complaint. OM8 0.023ppm 12.35-12.48.

OM9 0.019ppm 17.38-17.42+

Operational issues / causes observed. No source found odour from PAS area.

Actions taken: Blank.

PM

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 Multiple spikes. 19.48-20.00 max 0.043ppm. 20.15-20.33 max >0.045ppm, both <15 mins duration. 21.33-22.15 max 0.017ppm. 23.03-23.15 max 0.016ppm <15 mins duration.

OM3 04.21-04.33 0.038ppm <15mins duration.

Operational issues / causes observed. No odours found or reported, tankers off-loading throughout the night though.

Actions Taken: Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
27/09/18	0	183	0	183	1601	1784
28/09/18	0	180	0	183	1088	1271
01/10/18	0	1050	0	1050	2570	3620

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

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

small amounts of gas. There was also evidence of a historic spill which needs cleaning.

Digester 7 was in use but had a very wet seal that was bubbling off small amounts of gas. There was also evidence of a historic spill which needs cleaning.

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. There was also evidence of a historic spill which needs cleaning.

Digester 10 was in use but had a very wet seal that was bubbling off small amounts of gas. There was also evidence of a historic spill which needs cleaning.

Digester 11 was in use but had a very wet seal that was bubbling off small amounts of gas. The sludge level of digester 11 was very high, approx 2" from the top of the coping stones and the bell was almost at its maximum height.

Digester 12 was in use but had a very wet seal that was bubbling off small amounts of gas. There was also evidence of a historic spill which needs cleaning.

Digesters 13 & 14 were both out of service.

Digester 15 was in use and had a good dry crusty seal.

Digester 16 was out of service

Digester 17 was in use and had a good dry crusty seal.

Digester 18 was in use but had a very wet seal that was bubbling off small amounts of gas.

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

Area around the digesters washed down post inspection

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). All tanks were operational at the time of the inspection.

Skips

On the East side there was one 20yds open bulk carrier that was empty.

One 8yds & two 14yds skips that were also empty. And one 8yds skip that was covered which contained rag.

In the area next to STW 1A there was one 8yds & one 12yds skip that both contained general non-inert rubbish. There was also a large open skip, estimated to be approx 20yds, which again contained general inert rubbish.

On the access road leading to the digesters there was one 12yds skip that contained a small amount of rag and was partly covered with a tarpaulin, it was noted that the waste was not-odorous.

On the West side there was two 40yds closed bulk carrier that were both empty.

East Side Screen House

All doors were closed at the time of the inspection. TW advised all screen are in operation but two are currently off line due to reduced

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

flow into the works.

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.

PST's 9, 10 & 11 had fat free surfaces but PST 12 had fatty scum across approx 30% of the tanks surface.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7 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 appeared to be free flowing and the surface appeared much improved. However, it was noted that a number of the sprinklers that were in operation were clogged with weed and other matter, thereby impacting on their effectiveness.

Again a quantity of physical detritus in tank is still by-passing the 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.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring: 03/10/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	- - -	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	-	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	-	Unknown	Unknown
Thickening plant outlet	0.176 0.115 0.023	0.6	Yes

Transfer PS inlet	-	Unknown	Unknown
Transfer PS outlet	0.014 0.013 0.023	0.6	Yes
New West inlet (OCU 11)	0.165 0.147 0.154	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.0003 0.0003 0.0003	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 27 th September 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain (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 - approximately 40% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean. Hoppers 1, 2 & 3 90% full – require draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom.</p> <p>Tank 2B – Tank recently returned – whole tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom.</p> <p>Tank 3A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to 50% from bottom level (effluent water).</p> <p>Tank 3B – Tank recently returned – whole tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working. Window hatch removed to enable access for over-pumping – requires replacement.

Tank 6A – Tank empty and flushed - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 15% of tank covered by dried grit and sludge – requires further flushing. – Hoppers 1, 2 & 3 drained down to 40% - requires draining/over-pumping.

Tank 7A – Tank empty and flushed clean - approximately 30% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level – some sludge remaining that requires flushing.

Tank 7B – Tank recently returned – whole tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hopper 1, 2 & 3 full of effluent water.

Tank 8B – Tank empty and flushed - approximately 10% of tank covered by dried grit and sludge – requires further flushing. Hoppers 2 & 3 empty. Hopper 1 & 90% full of effluent water.

Feed Channel - The level of effluent in both feed channels was low – approximately 10-15% - some grit and sludge – 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	0.009	ppm	10:58
Monitor 2	0.005	ppm	10:58
Monitor 3	0.003	ppm	10:58
Monitor 4	0.005	ppm	10:58
Monitor 5	0.006	ppm	10:58
Monitor 6	0.005	ppm	10:58
Monitor 7	0.006	ppm	10:58
Monitor 8	0.005	ppm	10:58
Monitor 9	0.007	ppm	10:58
Monitor 10	0.005	ppm	10:58
Monitor 11	0.000	ppm	10:58
Monitor 12	0.000	ppm	10:58
Monitor 13	0.000	ppm	10:58
Wind Speed	5	mph	
Wind Direction	222°		

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

Thursday 20th September 2018:

AM – Warm – Rain with Sunny Spells.
All OMU's in use.

Observations: "No odour issues".

Actions: None noted.

PM – Warm - Rain with Sunny Spells.

All OMU's in use.

Observations: "No odour issues".

Actions: "East Inlet Area – Tankers offloading sludge imports throughout the night".

Friday 21st September 2018:

AM – Cool – Rain with Sunny Spells.

All OMU's in use.

Observations: "Monitor 3 - Two spikes (16:08-16:23 0.018ppm) (16:54 – 17:08 0.035ppm)".

Actions: "Investigated area. PST'24/25 refilling. Roof repairs required to seal tank properly. OCU 11 running but chemical dosing is out of range".

PM – Cool – Overcast Night.

All OMU's in use.

Observations: "OM3 Two spikes 21:06-21:20 0.036ppm 23:06-23:23 0.024ppm".

Causes: "PST 24 & 25 filling after being drained after being O.O.S. Holes in roof of tank".

Actions: None noted.

Saturday 22nd September 2018:

AM – Cool - Rain.

All OMU's in use.

Observations: "OM3 Spiked 4 times during shift: 11:05-11:33 Max 0.023 ppm, 11:50-12:18 Max 0.032 ppm, 13:20-13:33 Max 0.033 ppm but <15 mins duration, 17:03-17:20 Max >0.045 ppm".

Causes: "PST's 21-25 roofing requires repairs after high winds. OCU No.11 oxidation reduction potential (ORP) and Ph out of range-low".

Actions: "Reported to management via handover sheets."

PM – Cool – Rain.

All OMU's in use.

Observations: "OM3 - above trigger level for most of the night".

Causes: "OCU11 - is outputting 29.2 ppb. Which is the most likely cause as it has no chemical treatment working. No other problems spotted. Also high flows due to storm conditions".

Actions: None noted.

Sunday 23rd September 2018:

AM – Cool – Rain.

All OMU's in use.

Observations: "OM3 spiking at start of shift 06:00-07:30 max 0.033 ppm, OM3 spiked 08:30-08:42 max 0.023 ppm".

Causes: "OCU11 not performing".

Actions: "Asked day-works to check chemical dosing probes and calibrate, at end of shift 18:00 now back in range and output from stack is improving".

PM – Cold – Clear Night.

All OMU's in use.

Observations: "OM8 = 0.02ppm at 23:41-00:54".

Causes: "Digesters foaming".

Actions: "Anti-foamed."

Monday 24th September 2018:

AM – Warm – Sunny with patch clouds.

OMU - All OMU's in use.

Observations: "OM9 0.018ppm 9:00-9:13".

Causes: "13 mins duration".

Actions: None noted.

PM – Cool – Clear night.

All OMU's in use.

Observations: "OM5 21:30-22:49 0.024ppm OM9 21:03-21:16 0.017ppm".

Causes: "Area check around main drive no obvious odours found".

Actions: None noted.

Tuesday 25th September 2018:

AM – Warm – Sunny.

All OMU's in use.

Observations: None noted.

Causes: “No odour issues”.

Actions: None noted.

PM – Cold – Clear night.

All OMU's in use.

Observations: “OM5 (21:18-22:18 0.015ppm)”.

Causes: “Investigated area around monitor 5/main drive. No odour detected”.

Actions: None noted.

Wednesday 26th September 2018:

AM – Warm - Sunny.

All OMU's in use.

Observations: None noted.

Causes: “No odour issues.”

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations: “OM5 (19:33-19:48 0.015ppm) (20:03-20:18 0.016ppm)

OM3 (04:07-04:22 0.021ppm).”

Causes: “Investigated area around monitor 5 no odour identified. OCU11 chemical dosing (ORP and PH) not in range.”

Actions: “Defect raised for day ops to address chemical dosing issue.”

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					
21/09/18	0	1176	0	1176	1416	2592
25/09/18	0	61	0	61	2418	2479
26/09/18	0	183	0	183	2081	2264

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. 3ft below coping stones – seal weak and bubbling

Digester 6 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling – Ongoing spitting/spill – requires anti-foam and clean-up.

Digester 7 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 8 – in use – seal level approx. 4ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling – Evidence of previous spill now dried requiring clean-up.

Digester 10 – in use – seal level approx. 1ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 11 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 2ft 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 – Bell height high – requires draw down of biogas.

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

Digester 17 - in use – seal level approx. 4ft below coping stones – good seal.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal.

Digester 19 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 20 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

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 & 4x 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

Sludge Screening House

Shutter doors all 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 empty open large skip, 1x empty large enclosed skip and 1x large open empty general waste skip covered with blue tarpaulin containing rag and grit 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 enclosed general waste skip in Service Road by Power House

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

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

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

3x 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.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

Pasteurisation Plant

Plant 2, 9 and 11 currently out of service. All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 50% obstructed in one channel – requires jetting. Dried ponded sludge accumulated along kerbside of adjacent Service Road – requires clean-up.

New Works (West Side)

Feed Channel for Aeration Lanes 21-25 totally obstructed – requires jetting. Contractor on site to commence jetting at time of inspection.

Condition of Tanks static since last inspection - “fluffy” coverage across surface remains across approximately 40% of surface area of tanks. Some quantity of physical detritus in tank still bypassing screener.

Odour Control Unit (OCU) performance monitoring – (24/09/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000 0.000 0.000	Unknown	Unknown
Main pumping station outlet	0.000 0.000 0.000	0.2	Yes
East OCU	0.000 0.000 0.000	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	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)	0.000 0.000 0.000	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000	0.5	Yes



TW Site Inspection

Date of inspection: 20 th September 2018	
Attendees: Mr A Devine (L B Hounslow) & Mr M Hussain (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>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.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p> <p>Tank 6A and 6B were empty and clean. Hoppers 1, 2 & 3 of both tanks were approximately 30% full and required further overpumping.</p> <p>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.</p> <p>Tank 8A had a leakage and need flushing. Hoppers 1, 2 & 3 were all approx 40% full and needed draining down.</p> <p>Tank 8B was empty and clean. Hoppers 1 & 2 were approx ¾ at the time of the inspection. Hopper 3 was full. All the hoppers required</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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.

Tanker cleans out the channel on a weekly basis

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	
Wing 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 12:11pm, 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

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

Sludge spills cleaned and area washed down post inspection

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

Tanker cleans out the channel on a weekly basis

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.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

<p><u>Section 106 agreement</u></p> <p>There have been no breaches of the s106 agreement in the last week.</p> <p><u>West Side Aeration Lanes (Old)</u></p> <p>No issues appeared evident.</p>				
<p><u>New Works (West Side)</u></p> <p>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.</p> <p>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.</p> <p>The mixed liquor feed channel serving aeration lane 21 had a slight build-up of sludge during the inspection.</p> <p>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.</p> <p><u>New Inlet Works (West Side)</u></p> <p>No issues appeared evident at the new inlet works.</p> <p><u>Odour Control Unit (OCU) performance monitoring – 18/09/2018</u></p>				<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>
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			



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
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A empty & clean. All hoppers drained down to lowest point. Slight grit at the rear of the tank.</p> <p>Tank 1B empty and clean. All hoppers drained down to lowest point.</p> <p>Tank 2A empty and clean. All hoppers drained down to lowest point.</p> <p>Tank 3A empty and clean. All hoppers drained down to lowest point.</p> <p>Tank 3B empty and clean. All hoppers drained down to lowest point.</p> <p>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.</p> <p>Tank 6A empty and clean. All hoppers drained down to lowest point.</p> <p>Tank 6B empty and clean. All hoppers drained down to lowest point.</p> <p>Tank 7A empty and clean. All hoppers drained down to the lowest</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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) 0856-0909 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:

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.

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.

Observations/ Customer complaint: OM4 0.021 22:11 – 22:24.

Operational Issues/ causes observed: None noted.

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					
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.

As LBH note, this has not been required in the last week.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

Tanker cleans out the channel on a weekly basis

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				



TW Site Inspection

Date of inspection: 6 th September 2018	
Attendees: Mr Zaheer Kadri (L B Hounslow) & Mr M Hussain (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tanks 1A to 3B were all empty and clean. All the Hoppers had been drained down.</p> <p>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.</p> <p>Tank 6A and 6B were empty and clean. Hoppers 1, 2 & 3 of both tanks were all drained down and clear.</p> <p>Tank 7A was empty, however some grit had accumulated at the hopper end which needed sweeping. Hoppers 1, 2 & 3 (shallow hoppers) were full of effluent (sludgy) – Hoppers needed draining down.</p> <p>Tank 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 (thickish) – Hoppers needed draining down.</p> <p>Tank 8A had a leakage and need flushing - Hoppers 1, 2 & 3 were all approx. ¾ full and needed draining down.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all approx $\frac{3}{4}$ at the time of the inspection and were due to be over pumped the same day.

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 12:32 on 6th September 2018).

Monitor 1	0.005	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.003	ppm
Monitor 5	0.003	ppm
Monitor 6	0.005	ppm
Monitor 7	0.003	ppm
Monitor 8	0.007	ppm
Monitor 9	0.000	ppm
Monitor 10	0.000	ppm
Monitor 11	0.000	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm
Wind Direction	332,000	
Wind Speed	5.000	

Complaints

The Council received 1 complaint in the preceding week via email.

On the 27th of August 2018 at approx 06:09 an email complaint was received from a resident residing in the Eve Road area of Isleworth TW7 7HS (ref: 976411). The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was originally made (27th of August 2018 at approx 06:09).

A letter was sent out to the complainant on the 3rd of September 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

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

Thursday 30th August 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil.

No Odour Issues.

Actions None.

PM Cool, Clear night.

All OMU's in use.

Observations: 05:30 Nil.

No Odour Issues.

Actions None.

Friday 31st August 2018

AM Warm. Sunny with Patchy clouds.

All OMU's in use.

Observations: 17:30 Nil.

OM2 = 0.015ppm 21.26 to 21.38, OM5 = 0.025ppm 03.08 - 03.36 No Odour Issues.

Actions None.

PM Warm. Cool Clear night.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

Saturday 1st of September 2018

AM Hot. Sunny.

All OMU's in use.

Observations: 17:15 Nil

No odour issues.

Actions None

PM Warm. Sunny.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

Sunday 2nd September 2018

AM Hot. Sunny.

All OMU's in use.

Observations: 17:30 Nil.

No odour issues.

Actions None.

PM Cool. Clear night.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

Monday 3rd September 2018

AM Warm. Sunny with Patches.

All OMU's in use.

Observations: 17:30 Nil.

No odour issues.

Actions None.

PM Cool. Clear night.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

Tuesday 4th September 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil.

No odour issues.

Actions None.

PM Cool, Overcast night.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

Wednesday 5th September 2018

AM Warm. Sunny with patchy clouds.

All OMU's in use.

Observations: 17:45 Nil.

Odour complaint. Strong smell of gas from Regency Mews TW7 @16.15hrs.

Actions No odour discovered after site walk round. No spikes on trends. Digester bell height was low 22.5meters. Siloxane plant was not regenerating.

PM Cool, overcast night.

All OMU's in use.

Observations: 05:30 Nil.

No odour issues.

Actions None.

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					
02/09/18	20	656	0	676	1896	2572
03/09/18	20	244	0	264	1112	1376
04/09/18	20	122	0	142	1234	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 within three days.

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 are permanently out of use.

Digesters 5 & 6 were both in use and had good dry crusty seals.

Digesters 7 & 8 were both in use and had wet seals. It was also noted that both digesters appeared to be slightly bubbling inside and had high bell heights.

As LBH note, this has not been required in the last week.

Digester 9 was in use and had good dry crusty seal.

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

Digesters 11 and 12 were both in use and had good dry crusty seals.

Digesters 13 and 14 were both out of service.

Digester 15 was in use and had a wet seal.

Digester 16 was out of service

Digesters 17 & 18 were both in use and had wet seals.

Digesters 19 & 20 were both in use and had sludgy seals in places, crusty but were only bubbling off minimal amounts of gas.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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. 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.

East Side Screen House

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

Skips

On the East side there was two 8yd skips stacked up on each other and empty. There was a large Biffa Loader 20yd skip however this was empty and at the time was covered with Tarpaulin. The skip contained some general waste.

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) 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.

<u>West Side Aeration Lanes (Old)</u>			
No issues appeared evident.			
<u>New Works (West Side)</u>			
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. Some 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. Odour was noticeably present.			
The mixed liquor feed channel serving aeration lanes 24, 23, 22 & 21 all had thick sludgy surface (smooth/skimmed across the length). Odour was slightly noticeably at time of inspection.			
Odour was noticeable in places along the mixed liquor feed channel and a tanker crew were on site undertaking clearance of the clogged areas.			
<u>New Inlet Works (West Side)</u>			
No issues appeared evident at the new inlet works.			
<u>Odour Control Unit (OCU) performance monitoring – 5/09/2018</u>			
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	No data	0.8	Yes

Tanker cleans out the channel on a weekly basis

Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.01(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			



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 30 th 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 ½ full, hoppers 2 & 3 were both <¼ full. All hoppers required draining down.</p> <p>Tank 1B was empty and clean. Hopper 1 was ¾ full, hoppers 2 & 3 were both ½ full. All hoppers required draining down.</p> <p>Tank 2A was empty and clean. Hopper 1 was ¾ full, hopper 2 was ½ full and hopper 3 was 1/3 full. All hoppers required draining down.</p> <p>Tank 2B was empty and clean. Hopper 1 was ¾ full, hopper 2 was 2/3 full and hopper 3 was ¾ full. All hoppers required draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1 & 3 were both 2/3 full, hopper 2 was 1/3 full. All hoppers required draining down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all ½ 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>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	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

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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 a 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.

Tanker cleans out the channel on a weekly basis

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



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 23 rd August 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain (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 - approximately 80% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to 25% from bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 70% of tank covered by dried grit and sludge - requires further flushing. Hoppers 1, 2 & 3 drained down to 25% from bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 40% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 full of effluent water – surface of green algae.</p> <p>Tank 3A – Tank empty and flushed clean -- Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank empty and flushed - approximately 10% of tank</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to bottom level.

Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working. Window hatch removed to enable access for over-pumping – requires replacement.

Tank 6A – Tank empty and flushed - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. – Hoppers 1, 2 & 3 drained down to bottom level.

Tank 7A – Tank empty and flushed clean - approximately 10% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 7B – Tank empty and flushed clean – approximately 90% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hopper 1, 2 & 3 full of effluent water – surface of green algae.

Tank 8B – Tank empty and flushed - approximately 25% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 70% full of effluent water – surface of green algae.

Feed Channel - The level of effluent in both feed channels was low – approximately 10-15% - some grit and sludge.

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	0.004	ppm	12:15
Monitor 2	0.000	ppm	12:15
Monitor 3	0.000	ppm	12:15
Monitor 4	0.000	ppm	12:15
Monitor 5	0.000	ppm	12:15
Monitor 6	0.000	ppm	12:15
Monitor 7	0.000	ppm	12:15
Monitor 8	0.000	ppm	12:15
Monitor 9	0.000	ppm	12:15
Monitor 10	0.000	ppm	12:15
Monitor 11	0.000	ppm	12:15
Monitor 12	0.000	ppm	12:15
Monitor 13	0.000	ppm	12:15
Wind Speed	70	mph	
Wind Direction	300°		

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

Thursday 16th August 2018:

AM – Cool - Rain.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.
PM – Cool - Clear Night.
All OMU's in use.
Observations: "Monitor 1 – one spike 0.015ppm 15 min duration."
Actions: "No odour identified."

Friday 17th August 2018:

AM – Warm – Cloudy with Sunny spells.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.
PM – Cool – Clear Night.
OMU's 5, 10, 12 & 13 out of service. All other OMU's in use.
Observations: "No odour issues."
Actions: None noted.

Saturday 18th August 2018:

AM – Warm - Sunny with patchy cloud.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.
PM – Cool – Clear Night.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.

Sunday 19th August 2018:

AM – Warm – Sunny with patch cloud.
All OMU's in use.
Observations: "No odour issues."
Actions: None noted.
PM – Cool – Clear Night.
All OMU's in use.
Observations: "No odour issues."

Actions: None noted.

Monday 20th August 2018:

AM – Hot – Sunny

OMU - All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Clear night.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Tuesday 21st August 2018:

AM – Very Hot – Sunny with patch cloud.

All OMU's in use.

Observations: "OM2 0.017 15:07-15:22."

Actions: "15 mins – no source found."

PM – Warm – Clear night.

All OMU's in use.

Observations: "OM No.2 Spiked at 03:25 but < 15 mins duration."

Actions: None noted.

Wednesday 22nd August 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast Night.

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					
20/08/18	0	305	0	305	1449	1754
21/08/18	20	0	0	20	1601	1621
22/08/18	40	183	0	223	1440	1663

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. 4ft below coping stones – seal weak and bubbling

Digester 6 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling - Evidence of previous spill now dried – requires clean-up.

Digester 7 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 4ft below coping stones – seal

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

weak and bubbling – Bell height high – requires draw down of biogas.

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 10 – in use – seal level approx. 1ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 11 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 2ft 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. 3ft below coping stones – seal weak and bubbling - Evidence of previous spill now dried – requires 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 – good seal.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal.

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.

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.

4x full, 4x partially filled & 2x 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

Sludge Screening House

Shutter doors all closed at time of inspection.

Imported Sludge

Estimated average of ten 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 empty open large skip and 3x large open empty general waste skips, 1x small skip covered with blue tarpaulin containing rag and grit positioned in service road by FST's 71-78.

1x empty small grit slips.

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

East Side Screen House

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Doors open at time of inspection – skip being changed.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

Pasteurisation Plant

Plant 2 & 11 currently out of service. Plant 13, 14 & 16 being carbon filled. All remaining pasteurisation plant in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 50% obstructed in one channel – requires jetting. Dried ponded sludge accumulated along kerbside of adjacent Service Road – requires clean-up.

New Works (West Side)

Feed Channel for Aeration Lanes 21-25 totally obstructed – requires jetting. Contractor on site to commence jetting at time of inspection.

Condition of Tanks has deteriorated since last inspection - “fluffy” coverage across surface increased. Some quantity of physical detritus in tank still bypassing screener.

Area washed down post inspection

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (23/08/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000 0.000 0.000	Unknown	Unknown
Main pumping station outlet	0.000 0.000 0.000	0.2	Yes
East OCU	0.000 0.000 0.000	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	No data	0.8	Yes
Thickening plant inlet	No data		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)	0.000 0.000 0.000	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000	0.5	Yes



TW Site Inspection

Date of inspection: 16 th August 2018	
Attendees: Mr A Devine (L B Hounslow) & 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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1 & 2 were drained down. Hopper 3 was full.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all approximately 50% full.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 & 3 were all approximately 50% full.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all approximately 50% full.</p> <p>Tank 3B was empty but had a small amount of grit in the tank. Hoppers 1, 2 & 3 were all approximately 50% full.</p> <p>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</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

replacement.

Tank 6A and Tank 6B were both 50% full of effluent and were being filled during the inspection.

Tank 7A and Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all full.

Tank 8A was empty and clean. Hoppers 1 & 3 were all approx. $\frac{3}{4}$ full. Hopper 2 was approximately $\frac{1}{4}$ full.

Tank 8B was empty and clean. Hoppers 1 & 3 were all approx. $\frac{3}{4}$ full. Hopper 2 was approximately $\frac{1}{4}$ full.

Thames advised that all tanks are likely to be filled to due the weather conditions.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was high and flowing.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx. 13:10 on 16th August 2018).

Monitor 1	0.005	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.004	ppm
Monitor 7	0.000	ppm
Monitor 8	0.005	ppm
Monitor 9	0.000	ppm
Monitor 10	0.000	ppm
Monitor 11	0.000	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm

Wind Direction	246.000			
Wing Speed	8.000			

Complaints

The Council received 1 complaint via telephone in the preceding week

On the 14th August 2018 at 11:44 a telephone complaint was received from a resident of Mogden Lane, Isleworth, which is located to the southeast of the works (ref: 975981). The complainant was contacted at 12:27 and after confirming odour was still causing an issue the duty officer agreed to visit the area as soon as possible. A visit was made to Mogden Lane at approx. 13:06 and H2S sampling was carried which gave average readings of 0.000ppm. The subjective assessment confirmed excessive odour was not present. The historic odour monitoring trends around the time of the complaint showed no excessive readings on odour monitors 1 to 13. A letter was sent out to the complainant on the 16th August 2018 advising details of the site visit along with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

The Council received 1 complaint via email in the preceding week

On the 14th August 2018 at 14:39 an email complaint was received from a resident of Weavers Close, Isleworth (ref: 976054). The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings on odour monitors 1 to 13 around the time the complaint was originally made (14th August 2018 at 14:39).

A letter was sent out to the complainant on the 16th August 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

The Council received no complaints via MRAG in the preceding week

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

Thursday 09th August 2018

AM Warm. Rain with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues noted.

Actions None.

PM Cool with rain.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Friday 10th August 2018

AM Warm. Rain with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Cool, clear night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None

Saturday 11th August 2018

AM Warm. Sunny with patchy clouds.

All OMU's in use.

Observations: 17:30

Actions No actions

PM Cool, overcast night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Sunday 12th August 2018

AM Cool, rain with sunny spells

All OMU's in use.

Observations: 00:00 Nil. No odour issues.

Actions None.

PM Cool, overnight cast.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Monday 13th August 2018

AM Cool, sunny with patchy clouds.

All OMU's in use.

Observations: 17:20 Nil. No information recorded

Actions None.

PM Cool, clear night

All OMU's in use.

Observations: 05:30 Nil no odour issues

Actions No actions

Tuesday 14th August 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Cool. Clear night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Wednesday 15th August 2018

AM Warm, sunny with patchy clouds.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Cool, clear night

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

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					
13/08/18	0	534	0	534	1088	1622
15/08/18	0	0	0	0	1592	1917
*						

* Only two readings taken this week. Thames Water also advised that sludge stocks were low across the site.

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

Thames Water advised that there have been 12 imports daily on average.

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 & 6 were both in use and had good dry crusty seals.

As LBH note, this has not been required in the last week.

<p>Digesters 7 & 8 were both in use and had good dry crusty seals.</p> <p>Digester 9 was in use and had good dry crusty seal.</p> <p>Digester 10, 11 & 12 was in use and had wet seals.</p> <p>Digesters 13, 14 and 16 were all out of operation.</p> <p>Digester 15 was in use and had a good dry crusty seal.</p> <p>Digesters 17 & 18 were all in use and had good dry crusty seals.</p> <p>Digesters 19 & 20 were both in use and had good dry crusty seals.</p> <p>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.</p>	<div style="border: 1px solid black; padding: 10px; margin: 20px auto; width: fit-content;"> <p>The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.</p> </div>
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing along its length.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final settlement tanks (71-78).</p> <p>At the time of the inspection all tanks were in operation.</p>	

East Side Screen House

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

Skips

On the East side there was four 12yds skips. Three were empty and one contained a small amount of general rubbish that was covered with a tarpaulin.

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

There was one 12yd covered skip by the east side screen house

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised three streams were out of operation for maintenance, however one of these streams was to be brought back in to use today.

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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

E Battery:

The feed channel for aeration lane 25 was unclogged and running freely along the majority of the length however there was a part of the length which had a thick sludge that appeared crusty in places. Odour was not noticeable at time of Inspection.

The mixed liquor feed channel serving aeration lanes 24 & 23 were both clear and free flowing. The channel serving aeration lanes 22 & 21 were both free flowing.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 13/08/2018

Tanker cleans out the channel on a weekly basis

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.01(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	No data	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



TW Site Inspection

Date of inspection: 9 th August 2018 – (12:00)	
Attendees: Mr L Phillips (L B Hounslow) & 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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty slight grit build up in lower end of tank. Hopper 1 was approx ¼ full, hoppers 2 & 3 also require draining.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.</p> <p>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</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

replacement.

Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Tank 7A was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Tank 8A was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all drained down to lowest point.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was a dark murky in colour along the length however in parts had a greasy layer.

Tanker cleans out the channel on a weekly basis

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx. 13:10 on 9th August 2018).

Monitor 1	0.005	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.003	ppm
Monitor 8	0.005	ppm
Monitor 9	0.000	ppm
Monitor 10	0.000	ppm

Monitor 11	0.000	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm
Wind Direction	280.000	
Wing Speed	5.000	

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 Log (Thames) - Photocopies of log entries taken:

Thursday 02nd August 2018

AM Hot, sunny with patchy clouds.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None noted.

PM Hot and clear night.

All OMU's in use.

Observations: 05:30 Nil. None.

Actions None noted.

Friday 03rd August 2018

AM Hot, sunny

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None noted.

PM Warm, clear night.

All OMU's in use.

Observations: 05:30. Nil. No odour issues.

Actions None noted.

Saturday 04th August 2018

AM: Hot, Sunny.

All OMU's in use.

Observations: 17:30. Nil, No odour issues.

Actions No actions noted.

PM: Warm clear night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Sunday 05th August 2018:

AM: Hot, sunny

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None noted.

PM: Warm, clear night.

All OMU's in use.

Observations: 02:39 (0.016) & 22:32(0.017) OM2 spike less than one minute. 05:17 -05:32 OM2 spike 0.022.:40

Actions Area investigated no source found.

Monday 06th August 2018:

AM Very hot, sunny.

All OMU's in use.

Observations: 17:30 Nil. None noted.

Actions None noted.

PM Warm. Clear night.

All OMU's in use.

Observations: 00:47 OM2 spike 1 minute. no odour issues

Actions No actions noted.

Tuesday 07th August 2018:

AM: Very hot, Sunny with cloudy patches clouds..

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions: None noted.

PM: Warm, Rain.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None noted.

Wednesday 8th August 2018:

AM: Hot, Cloudy with sunny spells.

All OMU's in use.

Observations: 17:40 Nil. No odour issues.

Actions: None noted.

PM: Warm, Rain

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions: None Noted

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
02/08/18	0	61	88	149	936	1085
03/08/18	0	61	39	100	1416	1516
07/08/18	0	389*	0	355	1449	**2193

*Incorrect amounts entered on sludge dip record sheet for West PST's 3. Amounts entered total 389 but total summed on balance entered as 328?

**Grand Total amount summed on record sheet equals 2193. However, summed total entered on sheet as 1777?

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 12 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.

As LBH note, this has not been required in the last week.

Digester 5 was in use no evidence of spillage, weak seal.
Digester 6 was in use no evidence of spillage, weak seal.
Digester 7 was in use no evidence of spillage, weak seal.
Digester 8 was in use no evidence of spillage, weak seal.
Digester 9 was in use no evidence of spillage, weak seal.
Digester 10 was in use no evidence of spillage, weak seal.
Digester 11 was in use no evidence of spillage, weak seal.
Digester 12 was in use no evidence of spillage, weak seal.
Digesters 13, 14 and 16 were all out of operation.
Digester 15 was in use no evidence of spillage, weak seal.
Digesters 17 & 18 were all in use and had good dry crusty seals.
Digesters 19 & 20 was in use no evidence of spillage weak 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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

East Side Screen House

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

Skips

On the East side there was one 12yd skips. A small amount of general rubbish that was covered with a tarpaulin.

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

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised streams 3 & 11 were out of operation for 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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly. CELVAC were on site at the aeration lanes manually assisting clear up.

E Battery:

The feed channel for aeration lane 25 was unclogged and running freely along the majority of the length. Odour was not noticeable at time of Inspection.

The mixed liquor feed channel serving aeration lanes 24 & 23 were both clear and free flowing.

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

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 1/08/2018

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	No data	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				



TW Site Inspection

Date of inspection: 2 nd August 2018 – (12:00)	
Attendees: Mr Z Kadri (L B Hounslow) & 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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean. Hopper 1 was approx ¼ full, hoppers 2 & 3 were drained down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty and clean. Hopper 1 needed draining down however hopper 2 & 3 were all drained down.</p> <p>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</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

replacement.

Tank 6A and Tank 6B were both 20% full of effluent and all hoppers needed draining down. (Tank was being flushed and cleansed in order to tackle mosquitos).

Tank 7A and Tank 7B (shallow hoppers) were both 20% full of effluent and all hoppers needed draining down. (Tank was being flushed and cleansed in order to tackle mosquitos).

Tank 8A was empty and clean. Hoppers 1, 2 & 3 were all approx. $\frac{3}{4}$ full. Over pumping to the storm channel was taking place at the time of the inspection by TW staff.

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all approx. $\frac{3}{4}$ at the time of the inspection and were due to be over pumped the same day.

Thames advised that all tanks (6A-7B) and hoppers that were full were being flushed to prevent potential issue with insects (mosquitos).

Storm Water Channel

The storm feed channel serving STW's 1A-8B was a dark murky in colour along the length however in parts had a greasy layer.

Tanker cleans out the channel on a weekly basis

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx. 13:10 on 2nd August 2018).

Monitor 1	0.000	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm

Monitor 7	0.003	ppm
Monitor 8	0.008	ppm
Monitor 9	0.000	ppm
Monitor 10	0.000	ppm
Monitor 11	0.000	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm
Wind Direction	212.000	
Wing Speed	4.000	

Complaints

The Council received 0 complaints in the preceding week

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

Thursday 26th July 2018

AM very hot, sunny with patchy clouds.

All OMU's in use.

Observations: 17:30 Nil. No odour issues noted.

Actions None.

PM Hot and clear night.

All OMU's in use.

Observations: 05:45 Nil. No odour issues.

Actions None.

Friday 27th July 2018

AM very hot, sunny with patchy clouds

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Rain with sunny spells.

All OMU's in use.

Observations: 05:45. No odour issues. No spikes on trends

Actions No information logged.

Saturday 28th July 2018

AM Hot. Sunny with patchy clouds

All OMU's in use.

Observations: 17:30

Actions No actions

PM Warm cloudy with Sunny spells.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Sunday 29th July 2018

AM warm cloudy

All OMU's in use.

Observations: 17:35 Nil. No odour issues.

Actions None.

PM Rain , warm with sunny spells

All OMU's in use.

Observations: 05:40 Nil. No odour issues.

Actions None.

Monday 30th July 2018

AM Warm, sunny spells patchy clouds

All OMU's in use.

Observations: 17:40 Nil. No odour issues. No spikes on the trends

Actions None.

PM Warm. Rain with sunny spells

All OMU's in use.

Observations: 05:30 Nil no odour issues

Actions No actions

Tuesday 31st July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:50 Nil. No odour issues.

Actions None. Unable to check Trends

PM Cool. Clear night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Wednesday 1st August 2018

AM Warm and sunny.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM cool overcast night

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

****There may be a discrepancy with the entry of AM/PM time by operator****

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					
30/07/18	0	61	0	61	1088	1149
31/07/18	20	305	0	325	1592	1917
1/08/18	570*	946	0	1516	1416	2932

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.

***West PST1 on the 1st of August was above the OMP limit of 500**

Imported Sludge

There have been 3 imports of sludge over the last week. Imports of 12 daily on average.

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 & 6 were both in use and had good dry crusty seals.

LBH notified.

<p>Digesters 7 & 8 were both in use and had good dry crusty seals.</p> <p>Digester 9 was in use and had good dry crusty seal.</p> <p>Digester 10, 11 & 12 were all in use and had wet seals.</p> <p>Digesters 13 , 14 and 16 were all out of operation.</p> <p>Digester 15 was in use and had a good dry crusty seal.</p> <p>Digesters 17 & 18 were all in use and had good dry crusty seals.</p> <p>Digesters 19 & 20 were both in use and had good dry lumpy seals.</p> <p>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.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use</p> </div>
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing along its length.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>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.</p>	

East Side Screen House

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

Skips

On the East side there was two 12yds skips. One was empty and one contained a small amount of general rubbish that was covered with a tarpaulin.

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

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised streams 3 & 11 were out of operation for 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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly. CELVAC were on site at the aeration lanes manually assisting clear up.

E Battery:

The feed channel for aeration lane 25 was unclogged and running

freely along the majority of the length however there was a part of the length which had a thick sludge that appeared crusty in places. Odour was not noticeable at time of Inspection.
 The mixed liquor feed channel serving aeration lanes 24 & 23 were both clear and free flowing.
 The channel serving aeration lanes 22 & 21 were both free flowing.

Tanker cleans out the channel on a weekly basis

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 1/08/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.02(av)	0.2	Yes
East OCU	0.00(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	No data	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



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 27 th July 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain (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. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 20% of tank covered by dried grit - requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 30% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank empty and flushed - approximately 15% of tank covered by grit – requires further flushing. Hoppers 2 & 3 drained down</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

to bottom level. Hopper 1 approximately 50% full - requires flushing/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. Window hatch removed to enable access for over-pumping – requires replacement.

Tank 6A – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 20% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom.

Tank 7A – Tank empty and flushed clean - approximately 10% of tank covered by dried grit and sludge – 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 dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hopper 3 full of effluent water – surface of green algae. Hopper 1 drained down to bottom. Hopper 2 in process of being over-pumped.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 70% full of effluent water – surface of green algae.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge.

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	0.004	ppm	12:15
Monitor 2	0.004	ppm	12:15
Monitor 3	0.000	ppm	12:15
Monitor 4	0.000	ppm	12:15
Monitor 5	0.000	ppm	12:15
Monitor 6	0.000	ppm	12:15
Monitor 7	0.008	ppm	12:15
Monitor 8	0.004	ppm	12:15
Monitor 9	0.000	ppm	12:15
Monitor 10	0.000	ppm	12:15
Monitor 11	0.005	ppm	12:15
Monitor 12	0.000	ppm	12:15
Monitor 13	0.000	ppm	12:15
Wind Speed	6	mph	
Wind Direction	118°		

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

Thursday 19th July 2018:

AM – Hot - Sunny with patchy cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm - Clear Night.

All OMU's in use.

Observations: "No odour issues"

Actions: None noted.

Friday 20th July 2018:

AM – Warm – Cloudy with Sunny spells.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast Night.

OMU's 5, 10, 12 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Saturday 21st July 2018:

AM – Hot - Sunny with patchy cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Overcast night.

OMU's 10 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Sunday 22nd July 2018:

AM – Warm – Sunny with patch cloud.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted."

PM – Warm – Sunny with patch cloud.

OMU's 5, 11, 12 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Monday 23rd July 2018:

AM – Hot – Sunny

OMU - All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Warm – Clear night.

OMU's 10 & 13 out of service. All other OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Tuesday 24th July 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Hot – Clear night.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

Wednesday 25th July 2018:

AM – Hot - Sunny.

All OMU's in use.

Observations: "No odour issues."

Actions: None noted.

PM – Hot – Clear night.

All OMU's in use.

Observations: "Screening skips."

Actions: "West new and old hosed down around skips."

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					
19/07/18	0	244	61	305	784	1089
23/07/18	39	801	0	840	1416	2256
25/07/18	0	244	0	244	1264	1508

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.

As LBH note, this has not been required in the last week.

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. 3ft below coping stones – good seal - Evidence of previous spill now dried – requires clean-up.

Digester 6 - in use – seal level approx. 4ft below coping stones – good seal - Evidence of previous spill now dried – requires clean-up.

Digester 7 - in use – seal level approx. 3ft below coping stones – good seal – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 3ft below coping stones – good seal.

Digester 9 - in use – seal level approx. 1ft below coping stones – good seal.

Digester 10 - in use - seal level approx. 1ft below coping stones – good seal.

Digester 11 - in use – seal level approx. 1ft below coping stones – good seal.

Digester 12 - in use – seal level approx. 2ft below coping stones – good seal.

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 – good seal - Evidence of previous spill now dried – requires clean-up.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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

Digester 17 - in use – seal level approx. 2ft below coping stones – good seal.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal.

Digester 19 -- in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 20 - in use – seal level approx. 2ft 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.

2x full, 5x partially filled & 3x 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

Sludge Screening House

Shutter doors open at time of inspection.

Imported Sludge

Estimated average of ten 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 50% of surface of Tanks 73, 74 75 & 76.

Skips

1x empty open large skip and 2x large open empty general waste skips, 1x small skip covered with blue tarpaulin containing rag and grit positioned in service road by FST's 71-78.

1x empty small grit slips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

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

East Side Screen House

All doors closed.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting. Hose being used on adjacent aeration lane leaking at high pressure – require repair. Dried ponded sludge accumulated along kerbside of adjacent Service Road – requires clean-up.

New Works (West Side)

Feed Channel for Aeration Lanes 21-25 totally obstructed – requires jetting.

Condition of Tanks have improved since last inspection - “fluffy” coverage across surface largely removed. Some quantity of physical detritus in tank still bypassing screener.

Remaining Repaired/Replaced plant containing traces of rag deposits removed from site.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (23/07/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.000 0.000 0.000	Unknown	Unknown
Main pumping station outlet	0.000 0.000 0.000	0.2	Yes
East OCU	0.000 0.000 0.000	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	No data	0.8	Yes
Thickening plant inlet	0.010 0.000 0.010		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)	0.000 0.000 0.000	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000 0.000	0.5	Yes



TW Site Inspection

Date of inspection: 19 th July 2018	
Attendees: Mr I Inman (L B Hounslow) & 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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean. Hopper 1 was approx ¼ full, hoppers 2 & 3 were drained down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>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.</p> <p>Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all approx ¼ full.</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all approx. 1/3 full.

Tank 7A was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but had large amounts of grit in them.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but had large amounts of grit in them.

Tank 8A was empty and clean. Hoppers 1, 2 & 3 were all approx. ¾ full. Over pumping to the storm channel was taking place at the time of the inspection by TW staff.

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all approx. ¾ at the time of the inspection and were due to be over pumped the same day.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 12:50 on 19th July 2018).

Monitor 1	0.000	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	-0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.004	ppm

Monitor 8	0.000	ppm
Monitor 9	0.000	ppm
Monitor 10	-0.000	ppm
Monitor 11	0.004	ppm
Monitor 12	0.000	ppm
Monitor 13	-0.000	ppm
Wind Direction		
Wing Speed		

Complaints

The Council received 2 complaints in the preceding week (one being an earlier complaint that was incorrectly sent to another Department within the Council).

On the 12th July 2018 at 19:18 an Email complaint was received from a resident of Whitton Dene, Isleworth (ref: 974881), via MRAG.

The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was originally made (12th July 2018 at 18:18).

A letter was sent out to the complainant on the 19th July 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

On the 16th July 2018 at 21:02 a telephone complaint was received from a resident of Mogden Lane, Isleworth (ref: 975006). However, the complaint was not called through to the out of duty officer until 22:27.

The complainant was contacted at 22:24 and after confirming odour was still causing an issue the duty officer agreed to visit the area as soon as possible.

A visit was made to Mogden Lane at approx. 23:10 and H2S sampling was carried which gave average readings of 0.0000ppm. However, the subjective assessment confirmed odour was present, therefore the Thames Water OHC was contacted at 23:26. TW advised that a site walk around had already been carried out that confirmed there were no issues with STW Hoppers, digesters, etc, but another one would be

conducted to re-check.

The historic odour monitoring trends around the time of the complaint (between 20:00-00:30) showed no excessive readings.

A letter was sent out to the complainant on the 17th July 2018 advising details of the site visit along with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

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

Thursday 12th July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues noted.

Actions None.

PM Warm. Overcast night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Friday 13th July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Warm. Sunny with patchy clouds.

All OMU's in use.

Observations: 17:30. No odour issues.

Actions No information logged.

Saturday 14th July 2018

AM Hot. Sunny.

All OMU's in use.

Observations: 10:05. OM5 spiked to 0.03ppm for 15 minutes.

Actions Storm tanks filled through night and in process of being emptied.

PM Warm. Sunny.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

Sunday 15th July 2018

AM Hot. Sunny.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Warm. Clear night.

All OMU's in use.

Observations: 05:30 Nil. No odour issues.

Actions None.

Monday 16th July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:45 Nil. No odour issues.

Actions None.

PM Warm. Clear night.

All OMU's in use.

Observations: 23:36 OHC notified customer complaint by residents on ivy bridge estate and Hounslow Council.

05:30 No other complaints.

Actions No source found. Site survey carried out-no odour found, site survey also carried out at 01:50.

Tuesday 17th July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Warm. Clear night.

All OMU's in use.

Observations: 05:40 Nil. No odour issues.

Actions None.

Wednesday 18th July 2018

AM Warm. Cloudy with sunny spells.

All OMU's in use.

Observations: 17:30 Nil. No odour issues.

Actions None.

PM Warm. Clear night.

All OMU's in use.

Observations: 05:40 Nil. No odour issues.

Actions None.

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					
13/07/18	0	740	63	803	754* 785	1555* 1585
16/07/18	0	0	0	0	2889	2889
18/07/18	0	389	61	450	1264	1714

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 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

As LBH note, this has not been required in the last week.

Digesters 1-4 are permanently out of use.

Digesters 5 & 6 were both in use and had good dry crusty seals. It was also noted that both digesters appeared to bubbling excessively inside.

Digesters 7 & 8 were both in use and had good dry crusty seals. It was also noted that both digesters appeared to bubbling excessively inside and had high bell heights.

Digester 9 was in use and had good dry crusty seal.

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

Digesters 11, 12, 13 & 14 were all in use and had good dry crusty seals.

Digester 15 was in use and had a good dry crusty seal. However, there was evidence of a recent sludge spill which had not been cleaned up.

Digesters 16, 17 & 18 were all in use and had good dry crusty seals.

Digesters 19 & 20 were both in use and had wet seals but were only bubbling off minimal amounts of gas.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

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)

<p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>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.</p> <p><u>East Side Screen House</u></p> <p>The screen house doors were closed at the time of the inspection. Thames Water advised screen 1 was out of service due to maintenance.</p> <p><u>Skips</u></p> <p>On the East side there was two 12yds skips. One was empty and one contained a small amount of general rubbish that was covered with a tarpaulin. There was one 20yds open bulk carrier that was empty.</p> <p>On the West side there was one 40yds closed bulk carrier.</p> <p><u>Pasteurisation Plant</u></p> <p>The pasteurisation plant was in service at the time of the inspection. Thames Water advised streams 3 & 11 were out of operation for</p>	<div style="border: 1px solid black; padding: 5px;"><p>Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.</p></div>

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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

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. Odour was noticeably present.

The mixed liquor feed channel serving aeration lanes 24 & 23 were both clear.

The channel serving aeration lanes 22 & 21 were both clogged with thick sludge & debris.

Odour was noticeably present.

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)

Tanker cleans out the channel on a weekly basis

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 18/07/2018

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	No data	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.01(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



TW Site Inspection

Date of inspection: 12 th July 2018	
Attendees: Mr Andrew Devine (L B Hounslow) & Mr Waleed Janjua (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty but had some dried grit in the base of the tank. Hoppers 1, 2 & 3 were all drained down but there was some scum on the surface which require over pumping.</p> <p>Tank 1B was empty and clean of grit. Hoppers 1, 2 and 3 was drained down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down but there was some scum on the surface which require over pumping.</p> <p>Tank 2B was empty and clean. Hopper 1 was approx half full, hoppers 2 & 3 were drained down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty and clean. Hopper 1 was approx half full of black effluent water. Hoppers 2 & 3 were all drained down</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all approx half full and were covered by a green algae.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all approx ¼ full. Tank 7A was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all full.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all full.

Tank 8A was empty and clean. Hopper 1 was approx ¼ full with black effluent and sludge. Hopper 2 was drained down and hopper 3 was approx ¼ full. A local odour was noted in this area.

Tank 8B was empty and clean. Hopper 1 was approx ½ full with effluent covered with green algae. Hoppers 2 and 3 were drained down.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 12:30 on 12th July 2018).

Monitor 1	0.003	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.005	ppm
Monitor 7	0.003	ppm
Monitor 8	0.000	ppm
Monitor 9	0.000	ppm
Monitor 10	0.000	ppm
Monitor 11	0.004	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm

Wind Dir	52.000			
Wind Spd	0.000			

Complaints

The council received one complaint via telephone in the preceding week.

On the 5th July 2018 at approx 15:28 a telephone complaint was received from a resident of Turham Green Terrace, Chiswick (ref: 974621). During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made.

The Storm tanks are located on the east side of the works and both the AM and PM logs on the 5th July recorded that the only uncovered tanks that were in use was tanks 4A and 4B and that only Tank 7A needed flushing and hoppers 1A, 1B, 3B, 8A and 8B required over pumping. The digester records for the 5th July recorded that there were no spills. The odour log for both the AM and PM shifts on the 5th July recorded no odour issues and nothing of note on trends, however the AM and PM shift recorded Odour monitor 1 not working and odour monitor 10 not working for the PM shift. It has not been possible on this occasion to identify the source of odour complained of by the resident.

The council received three complaint via email in the preceding week.

On the 07th July 2018 at approximately 22:19 an email complaint was received from a resident, however the resident did not give their address details. An email has been sent to request these (ref: 974711). The complainant stated that there is a foul stink of sewage in the air tonight in TW1. Not nice on such a warm night when you absolutely have to have your windows open. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made.

The Storm tanks are located on the east side of the works and both the

AM and PM storm water tanks logs for the 7th July recorded that only the covered tanks 4A to 5B were in use and hoppers 1B, 3B and 7A to 8B required over pumping but that none of the tanks required flushing. The digester records for the 7th July recorded that there were no spills. The odour log for both the AM and PM shifts on the 7th July recorded no odour issues but that odour monitoring 1 was not working. Therefore it has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 11th July 2018 at approximately 14:19 an email complaint was received from a resident of Church Street, Isleworth, which is located to the north east of the works (ref: 974800). The complainant stated that there is a foul smell from Mogden. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed odour monitor 1 spiking to 0.059ppm between 13:34pm to 14:33pm decreasing to 0.000ppm by 15:542pm. There were no other spikes or excessive readings around the time the complaint was made.

The Storm tanks are located on the east side of the works and both the AM and PM storm water tanks logs for the 11th July recorded that only the covered tanks 4A to 5B were in use and hoppers 1B, 3B, 8A and 8B required over pumping but that none of the tanks required flushing. The digester records for the 11th July recorded that there were no spills. The odour log for both the AM and PM shifts on the 11th July recorded no odour issues. Therefore it has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 11th July 2018 at approximately 18:53 an email complaint was received from a resident of Church Street, Isleworth, which is located to the north east of the works (ref: 974824). The complainant stated that there is a stench of Mogden is here again this evening, this is the third day in a row. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made.

The Storm tanks are located on the east side of the works and both the AM and PM storm water tanks logs for the 11th July recorded that only the covered tanks 4A to 5B were in use and hoppers 1B, 3B, 8A and 8B required over pumping but that none of the tanks required flushing. The digester records for the 11th July recorded that there were no spills. The odour log for both the AM and PM shifts on the 11th July recorded

no odour issues. Therefore it has not been possible on this occasion to identify the source of odour complained of by the resident.

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

Thursday 05th July 2018

AM

Observations No odour issues. Odour Monitors 1 and 10 flat lined.

Actions Reported

PM

Observations No odour issues.

Actions None.

Friday 06th July 2018

AM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

PM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

Saturday 07rd J July 2018

AM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

PM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

Sunday 08th July 2018

AM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

PM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

Monday 09th July 2018

AM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

PM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

Tuesday 10th July 2018

AM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

PM

Observations No odour issues. Odour Monitor 1 flat lined.

Actions None.

Wednesday 11th July 2018

AM

Observations No odour issues. Odour Monitor 1 now working.

Actions None.

PM

Observations No odour issues.

Actions None.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
09/07/18	870	1030	870	1961	1416	3377
10/06/18	155	642	*	797	1440	2237
11/06/18	39	740	0	779	1568	2347

The sludge stock levels for the West side circular primary settlement tank 1 were NOT compliant with the OMP trigger level (500m³) for the data provided on the 09/0718.

While on site Thames Water stated Sludge dip record sheet 09/07/18 - PST 1 exceeds 500m³ as over the weekend they contended with a blockage on PST9 which was quickly addressed but resulted in a slight backlog of sludge in the subsequent tanks. We carefully monitored the odour levels which did not cause any concern during this period.

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.

*recorded as H₂S on sheet. Thames Water advised that the Sludge dip record sheet 10/7/18 - has H₂S written in PST 3 due the recent weather and increased temperatures, H₂S coming into the works from the network resulted in spikes of H₂S in some of our PSTs - as a precautionary measure, we restricted access but at the same time did ensure there was no elevation of sludge levels by running our Desludge pumps continuously.

LBH notified.

Imported Sludge

There have been 47 imports of sludge over the last week with each import containing 35m³.

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, 6, 7, 8 & 9 were all in use and had good dry crusty seals.

Digester 10 was in use and had wet seals but were only bubbling off minimal amounts of gas.

Digesters 11 and 12 was in use and had a good dry crusty seal.

Digesters 13 & 14 were both out of use.

Digester 15 was in use and had a good dry crusty seal.

Digester 16 was out of use.

Digesters 17 & 18 were both in use and had good dry crusty seals.

Digesters 19 & 20 were both in use and had been pelleted.

All digesters and bell heights just below the half way mark.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

East Side Screen House

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

Skips

On the East side there was one 20yds skip open bulk carrier which was empty at time of inspection. There were also two 6yd skips, one of which was empty and uncovered and 1 was a general waste which was uncovered.

On the West side there was one 20yds open bulk carrier that was empty.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised all the streams were in operation.

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 improved and the thick “fluffy” coverage across their entire surface is no longer present. The surface appears much improved and free flowing. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was flowing and not clogged on the surface however there were some sludgy areas noticed.

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

Thames Water officer advised that a company called Kalvac has now been contracted out to clear the sludge and rag build up along the channels.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 26/06/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.000(av)	0.2	Yes
East OCU	0.000(av)	0.05	Yes
West inlet	0.000(av)	0.05	Yes
Sludge reception outlet	*	0.8	Yes
Thickening plant outlet	0.000(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.001(av)	0.6	Yes
New West OCU 11 outlet	0.004 (av)	0.6	Yes

Jerome reading

* No information given as Thames Water have advised that the sludge reception plant is currently out of service.



TW Site Inspection

Date of inspection: 05 th July 2018	
Attendees: Mr Leroy Phillips (L B Hounslow) & Mr Waleed Janjua (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. All hoppers drained to lowest point, no odours detected.</p> <p>Tank 1B was empty and clean. All hoppers require draining no odour detected.</p> <p>Tank 2A was empty and clean. All hoppers were all drained down to lowest point.</p> <p>Tank 2B was empty and clean. Hopper's 1 & 3 were approx half full, hopper 2 was fully drained down.</p> <p>Tank 3A was empty and clean. All hoppers were all drained down to lowest point.</p> <p>Tank 3B was empty and clean. All hoppers were all drained down to lowest point.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty and clean. All hoppers were all drained down to lowest point.</p> <p>Tank 6B was empty and clean. All hoppers were all drained down to</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

lowest point.

Tank 7A was empty and clean slight grit build up. All hoppers were all drained down to lowest point.

Tank 7B was empty and clean. All hoppers were all drained down to lowest point.

Tank 8A was empty and clean, slight grit build up in tank. All hoppers were all drained down to lowest point.

Tank 8B was empty and clean, slight grit build up in tank. All hoppers were all drained down to lowest point.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 12:20 on 5th July 2018).

Monitor 1	0.000	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.008	ppm
Monitor 8	0.004	ppm
Monitor 9	0.006	ppm
Monitor 10	0.000	ppm
Monitor 11	0.007	ppm
Monitor 12	0.003	ppm
Monitor 13	0.000	ppm

Complaints

The Council received 2 complaints in the preceding week.

A complaint from Brambles Close, Isleworth was received on the 04th July 2018 at approx 21:50. The officer telephoned the complainant at 21:55, However, the complainant was too far from the works for it to be a valid complaint. The duty Officer advised the complainant that due to the distance the odour was not from the works but from the street gully. This was confirmed by the complainant following a short downpour of rain. A letter was sent out to the complainant on the 5th of July 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

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

Thursday 28st June 2018

AM

Observations: No odour issues on site. No spikes on trends.

Actions: None noted.

PM

Observations: None noted.

Actions: None noted.

Friday 29th June 2018

AM

Observations: No odour problems on site. Nothing of note on trends.

Actions: None noted.

PM

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

Actions: None noted.

Saturday 30th June 2018

AM

Observations: No odour issues on site.

Actions: None noted.

PM

Observations: No odour issues on site.

Actions: None.

Sunday 1st July 2018

AM

Observations: No odour issues on site.

Actions: None noted.

PM

Observations: Customer complaint at 20:00 on investigation form. Odour Monitor 5 spike 0.034 at 23:11 less than 15 mins. Odour monitor 5 spiked to 0.050 at 00:26 less than 15 mins.

Actions: None.

Monday 2nd July 2018

AM

Observations: No odour spikes showing on trends odour complaint from Harvester Close. Area around E battery checked and digesters. Odour suppressant unit running on E battery Aeration Lanes.

Actions: None noted.

PM

Observations: Smell complaint from Prospect Drive at MN. Odour patrol of site done nothing of note found. No odour spikes on trends. No odour spikes through night.

Actions: None noted.

Tuesday 03rd July 2018

AM

Observations: No odour spikes No odour problems.

Actions: None noted.

PM

Observations: No odour issues on site nothing of note on trends.

Actions: None noted.

Wednesday 04th July 2018

AM

Observations: No odour spikes. No odour problems.

Actions: None noted.

PM

Observations: No odour problems on site nothing of note on trends.

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					
02/07/18	0	947	0	947	304	1251
03/07/18	0	909	183	1092	1592	2684
04/07/18	0	886	61	947	3090	4037

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 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

As LBH note, this has not been required in the last week

Digesters 1-4 are permanently out of use.

Digester 5 was in use and had a good dry crusty seal.

Digester 6 was in use and had a good seal.

Digester 7 was in use and had a good dry crusty seal.

Digester 8 was in use and had a good dry crusty seal.

Digester 9 was in use and had a good dry crusty seal.

Digester 10 was in use and had weak sloppy seal, no evidence of spill.

Digester 11 was in use and had a good dry crusty seal.

Digester 12 was in use and had a weak sloppy seal, no evidence of spill.

Digesters 13 & 14 were both out of use.

Digester 15 was in use and had a good dry crusty seal.

Digester 16 was out of use.

Digester 17 was in use and had a good dry crusty seal.

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

Digester 19 was in use has a weak sloppy seal, no evidence of spill.

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

All digesters and bell heights just below the half way mark.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

East Side Screen House

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

Skips

East side there was one 20yds skip open bulk carrier which was empty.

On the West side there was one 40yds closed bulk carrier & two 20yds open bulk carriers that were both empty.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised all the streams were in operation.

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, tanker onsite at time of inspection. All the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was flowing and not issues surface appearance fluffy.

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

Thames Water officer advised that a company called Kalvac has now been contracted out to clear the sludge and rag build up along the channels.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 02/07/2018

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	0.01(av)	0.6	Yes
New West OCU 11 outlet	0.08(av)	0.6	Yes

Jerome reading



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 28 th June 2018	
Attendees: Mr Zaheer Kadri (L B Hounslow) & Mr Waleed Janjua (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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean of grit. Hopper 1, 2 and 3 was drained down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean. Hopper 3 was approx ¼ full, hoppers 1 & 2 were drained down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all approx <¼ full.</p> <p>Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all drained</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

down.

Tank 7A was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 8A was empty and clean. Hoppers 1, 2 & 3 were all full at the time of the inspection and were due to be over pumped the same day.

Tank 8B was empty and clean. Hopper 1, 2 and 3 were full and were being over pumped at the time of the inspection by TW staff.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 12:20 on 28th June 2018).

Monitor 1	0.004	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.005	ppm
Monitor 8	0.003	ppm
Monitor 9	0.004	ppm
Monitor 10	0.000	ppm
Monitor 11	0.004	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm

Wind Dir	69.000			
Wind Spd	5.000			

Complaints

The Council received 2 complaints in the preceding week.

On Tuesday, June 26th 2018 at 23:01 a resident emailed Thames Water regarding odour in the vicinity of Mogden- No fixed location was detailed in the email. This email was forwarded by Thames Water to LBH on the 27th June 2018 at 00:02. A letter was sent out to the complainant on the 3rd of July 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

A complaint from the Harvester Road area was received on the 27th June 2018 at approx 14:49. The officer attempted to call the complainant back at 15:25 but the callers telephone contact details were incorrect. Hence unable to contact complainant. A letter was sent out to the complainant on the 3rd of July 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

On the 28th of June at approx 13:29 a call was received about alleged odours in the area of Consort Mews, Isleworth. At the time of the complaint the Officer on duty was inspecting TWSW and no odours were apparent at the time. A letter was sent out to the complainant on the 3rd of July 2018 with information on the 24 hour Mogden call out service and information of how to access weekly reports from inspections.

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

Thursday 21st June 2018

Observations AM No odour spikes, no other issues.

Actions: None.

Observations PM No odour issues.

Actions: None.

Friday 22nd June 2018

Observations AM No odour spikes, no other issues

Actions: None.

Observations PM No odour issues. No spikes on trends.

Actions: None.

Saturday 23rd June 2018

Observations AM OM 8 spiked to 0.03ppm between 11:53-11:58 (less than a 15 minute duration)

Actions: None.

Observations PM No odour issues on site.

Actions: None.

Sunday 24th June 2018

Observations AM No odour issues. Nothing to report on trends

Actions: None.

Observations PM No odour issues. Nothing to report on trends.

Actions: None.

Monday 25th June 2018

Observations AM No odour issues found or reported.

Actions: None.

Observations PM No odour issues. Nothing to report on trends.

Actions: None.

Tuesday 26th June 2018

Observations AM No odour issues.

Actions: None.

Observations PM Nothing to note on trends. No odour issues overnight

Actions: None.

Wednesday 27th June 2018

Observations AM No odour issues found or reported. Nothing spiking on trends.

Actions: None.

Observations PM No odour spikes. No other issues.

Actions: None.

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					
22/06/18	0	1631	0	1631	1929	3560
25/06/18	392	244	0	636	1592	2228
26/06/18	253	764	0	1017	1112	1365 (*2129)

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.

*There seems to be an error in the calculation – TW Grand Total calculations reads 1365 when Grand Total should total 2129

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.

As LBH note, this has not been required in the last week.

Digesters

Digesters 1-4 are permanently out of use.

Digesters 5, 6, 7, 8 & 9 were all in use and had good dry crusty seals.

Digesters 10 & 11 were in use and had wet seals but were only bubbling off minimal amounts of gas.

Digester 12 was in use and had a good dry crusty seal.

Digesters 13 & 14 were both out of use.

Digester 15 was in use and had a good dry crusty seal.

Digester 16 was out of use.

Digesters 17 & 18 were both in use and had good dry crusty seals.

Digesters 19 & 20 were both in use and had been pelleted.

All digesters and bell heights just below the half way mark.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

East Side Screen House

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

Skips

On the East side there was one 20yds skip open bulk carrier which was empty at time of inspection.

On the West side there was one 40yds closed bulk carrier & two 20yds open bulk carriers that were both empty.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised all the streams were in operation.

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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

The mixed liquor feed channel serving aeration lanes 24-25 (E Battery) was flowing and not clogged on the surface however there were some sludgy areas noticed.

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

Thames Water officer advised that a new contractor has been contracted out to clear the sludge and rag build up along the channels.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 26/06/2018

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	0.04(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				



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 21 st June 2018	
Attendees: Mr I Inman (L B Hounslow) & 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. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 1B was empty and clean. Hopper 1 was drained down, hoppers 2 & 3 were approx ¼ full.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty and clean. Hopper was approx ¼ full, hoppers 2 & 3 were drained down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty and clean. Hoppers 1, 2 & 3 were all approx <¼ full.</p> <p>Tank 6B was empty and clean. Hoppers 1, 2 & 3 were all drained</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

down.

Tank 7A was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but had large amounts of grit in them.

Tank 7B was empty and clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but had large amounts of grit in them.

Tank 8A was empty and clean. Hopper 1 was 1/3 full, hoppers 2 & 3 were full. Over pumping to empty the hoppers was taking place at the time of the inspection by TW staff.

Tank 8B was empty and clean. Hoppers 1, 2 & 3 were all full at the time of the inspection and were due to be over pumped the same day.

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.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 12:49 on 21st June 2018 2018).

Monitor 1	0.000	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.005	ppm
Monitor 8	0.004	ppm
Monitor 9	0.004	ppm
Monitor 10	0.000	ppm
Monitor 11	0.005	ppm
Monitor 12	0.000	ppm

Monitor 13	0.000	ppm	
<p><u>Complaints</u></p>			
<p>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.</p>			
<p><u>Odour Log (Thames) - Photocopies of log entries taken:</u></p>			
<p>Thursday 14th June 2018</p>			
<p>Observations AM No odour spikes, no other issues.</p>			
<p>Actions: None.</p>			
<p>Observations PM No odour issues.</p>			
<p>Actions: None.</p>			
<p>Friday 15th June 2018</p>			
<p>Observations AM OM8 spiked 0.020ppm between 09:29-09:44 (15 mins). No other issues</p>			
<p>Actions: None.</p>			
<p>Observations PM No odour issues. No spikes on trends.</p>			
<p>Actions: None.</p>			
<p>Saturday 16th June 2018</p>			
<p>Observations AM No odour spikes. No other issues.</p>			
<p>Actions: None.</p>			
<p>Observations PM No odour issues on site.</p>			
<p>Actions: None.</p>			
<p>Sunday 17th June 2018</p>			
<p>Observations AM No odour issues. Nothing to report on trends.</p>			
<p>Actions: None.</p>			

Observations PM No odour issues. Nothing to report on trends.
Actions: None.

Monday 18th June 2018

Observations AM No odour issues found or reported.

Actions: None.

Observations PM No odour issues. Nothing to report on trends.

Actions: None.

Tuesday 19th June 2018

Observations AM No odour issues.

Actions: None.

Observations PM Nothing to note on trends. No odour issues overnight

Actions: None.

Wednesday 20th June 2018

Observations AM No odour issues found or reported. Nothing spiking on trends.

Actions: None.

Observations PM No odour spikes. No other issues.

Actions: None.

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					
15/06/18	20	1008	0	1028	1440	2468
18/06/18	0	511	1405	1916	912	2828
25/04/18	20	1321	0	1341	1112	2453

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 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 are permanently out of use.

As LBH note, this has not been required in the last week.

Digesters 5, 6, 7, 8 & 9 were all in use and had good dry crusty seals.

Digesters 10 & 11 were in use and had wet seals but were only bubbling off minimal amounts of gas.

Digester 12 was in use and had a good dry crusty seal.

Digesters 13 & 14 were both out of use.

Digester 15 was in use and had a good dry crusty seal.

Digester 16 was out of use.

Digesters 17 & 18 were both in use and had good dry crusty seals.

Digesters 19 & 20 were both in use and had wet seals but were only bubbling off minimal amounts of gas.

All digesters and bell heights just below the half way mark.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

East Side Screen House

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

Thames Water advised that some of the screens were out of service (possibly 1 & 3) due to maintenance.

Skips

On the East side there was one 12yds skip which contained a small amount of general rubbish and one 20yds open bulk carrier that was empty.

On the West side there was one 40yds closed bulk carrier & two 20yds open bulk carriers that were both empty.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection.

Thames Water advised 9 of the 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 (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. Almost all the sprinklers were in operation at the time of the inspection and appeared to be functioning correctly.

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 22 & 23 were free flowing but the channel serving lane 21 was clogged with thick crusty sludge.

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 – 20/06/2018

Tanker cleans out the channel on a weekly basis

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			



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 14 th June 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain (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 - approximately 40% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - approximately 20% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 30% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean -- approximately 10% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 3B – Tank empty and flushed - approximately 15% of tank covered by grit – requires further flushing – Hoppers 2 & 3 drained down to bottom level. Hopper 1 approximately 50% - requires flushing/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 empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. – Hoppers 1 & 3 drained down to bottom level. Hopper 2 approximately 30% - requires flushing/over-pumping.

Tank 6B – Tank empty and flushed - approximately 20% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to 30% - requires flushing/over-pumping.

Tank 7A – Tank empty and flushed clean - approximately 20% of tank covered by dried grit and sludge – 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 dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 8A – Tank empty and flushed clean. Hoppers 2 & 3 full of effluent water – surface of green algae. Hopper 1 approximately 30% - requires flushing/over-pumping.

Tank 8B – Tank empty and flushed - approximately 10% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge. Large quantity of accumulated grit/sludge and rag attached to ladders and back of gates – some local odour – requires removal and flushing.

Tanker cleans out the channel on a weekly basis

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.

On 9th June 2018 at 11:32 an email was received advising:

“I am a resident in Kneller Gardens. I am emailing to make you aware that the odour in the area has been strong for about 3 days. It is unpleasant and can at times be smelt inside the house. Please advise on what the council and Thames water are doing to address this”.

The odour log for AM shift on 9th June detailed: “No odour spikes. PST’s 9,10,11,12 smelly. Sludge stocks reduced in PST 9 and 12. Odour unit running in area.”

The historic odour monitoring trends for all OMU’s within the vicinity showed maximum levels of .005ppm during this period.

On 10th June 2018 at 08:10 an email was received advising:

I live at 26 wainwright grove and for the last week have found the smell coming from Mogden appalling. It has affected me sitting in my garden in these wonderful summer eves and I have spoken to many residents in the area that have felt the same. The smell has severely deteriorated in the last week and am disappointed that Mogden have said they were addressing this yet the awful issue remains. I truly hope this situation will be addressed and rectified”.

The odour log for AM shift on 10th June detailed:

“No odour spikes showing on Trends. Odour Complaints. Odour suppressant unit running on old West, PST’s 9,10,11,12 de-sludge and stocks low (39m³). Area around skips on E Battery inlet hosed down. Tim called to set second odour suppressant unit up on E Battery aeration lanes. MEA on site as OHC.”

The historic odour monitoring trends for all OMU's within the vicinity showed maximum levels of .005ppm during this period.

The Council received one complaint by email from MRAG.

On 8th June 2018 an email was received via MRAG at 14:06 – forwarding a communication regarding an incident reported to them at 18:45 on 25/03/18 (11 weeks previously). No data search conducted

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	0.005	ppm	13:15
Monitor 2	0.000	ppm	13:15
Monitor 3	0.000	ppm	13:15
Monitor 4	0.000	ppm	13:15
Monitor 5	0.004	ppm	13:15
Monitor 6	0.004	ppm	13:15
Monitor 7	0.005	ppm	13:15
Monitor 8	0.008	ppm	13:15
Monitor 9	0.004	ppm	13:15
Monitor 10	0.000	ppm	13:15
Monitor 11	0.005	ppm	13:15
Monitor 12	0.000	ppm	13:15
Monitor 13	0.000	ppm	13:15
Wind Speed	10	mph	
Wind Direction	236°		

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

Thursday 7th June 2018:

AM – Warm with Sun and light cloud.

No OMU data.

Observations: “No odour spikes. No odour problems. PST 9,10,11,12 VERY SMELLY. PST 9 back flushed/pumping now. PST 12 back flushed/not pumping.”

Actions: “Day works called to unblock PST 9 and 12.”

PM – Cool/Warm with partial Sun and heavy cloud.

No OMU data.

Observations: “No odour issues. Nothing to report on Trends.”

Actions: None noted.

Friday 8th June 2018:

AM – Warm with clear Sun.

No OMU data.

Observations: “No odour spikes. PST’s 9 and 12 both back pumping.”

Actions: None noted.

PM – Cool with Sun and heavy cloud.

No OMU data.

Observations: “OM 1-5 = No spikes. 6-13 = No spikes.”

Actions: None noted.

Saturday 9th June 2018:

AM – Warm with Sun and partial cloud.

All OMU’s in use.

Observations: “No odour spikes. PST’s 9,10,11,12 smelly. Sludge stocks reduced in PST 9 and 12.”

Actions: “Odour unit running in area.”

PM – Cool with Sun, heavy cloud and rain.

No OMU data.

Observations: “OM 1-5 No spikes. 6-13 No spikes.”

Actions: None noted.

Sunday 10th June 2018:

AM – No observations noted.

No OMU’ data.

Observations: “No odour spikes showing on Trends. **Odour Complaints.**”

Actions: "Odour suppressant unit running on old West, PST's 9,10,11,12 de-sludge and stocks low (39m³). Area around skips on E Battery inlet hosed down. Tim called to set second odour suppressant unit up on E Battery aeration lanes. MEA on site as OHC."

PM – Cool.

OMU's 5, 12 and 13 out of use.

Observations: "OM 1-5 – No spikes – Mon 5 reading Negative. OM 6-13 – No spikes. Monitors 12 + 13 – Negative reading."

Actions: None noted.

Monday 11th June 2018:

AM – Hot with clear Sun.

OMU - All OMU's in use.

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

Actions: None noted.

PM – Cool with Sun and light cloud.

OMU 10 out of use.

Observations: "Odour Complaint received by WOCC at 23:50hrs. OM 1-5 = No spikes. 6-13 = No spikes."

Actions: "Tech 1 visited area approx. 20:00 and at MN. Only odour was from ASP. Monitors not recording any problems."

Tuesday 12th June 2018:

AM – Warm with Sun and light cloud.

All OMU's in use.

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

Actions: None noted.

PM – Cool with Sun with light cloud.

OMU's 1-5 in use. No data for other OMU's

Observations: "No odour spikes. No odour actions taken."

Actions: None noted.

Wednesday 9th May 2018:

AM – Warm with Sun and light cloud.

All OMU's in use.

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

Actions: None noted.

PM – Hot with Sun and light cloud.

All OMU's in use.

Observations: "Trends showing no odour spikes. No odour problems."

Actions: None noted.	
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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					
09/06/18	127	2422	305	2854	3083	5937
12/06/18	982	970	122	2074	1777 (TW figure 2077)	3851 (TW figure 4151)
13/06/18	523	1008	0	1531	1601	3132

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

Explanation provided by Thames Water with regards to elevated levels on 12/06/18 and 13/06/18: **“Elevated sludge stocks on West PST’s due to extra supernatant and NOT sludge.”**

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.

LBH notified.

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. 4ft below coping stones – good seal.

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

Digester 7 - in use – seal level approx. 5ft below coping stones – seal weak and bubbling vigorously – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 6ft below coping stones – seal weak and bubbling.

Digester 9 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 10 – in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 2ft 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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

Digester 15 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring clean-up.

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

Digester 17 - in use – seal level approx. 2ft below coping stones – good seal – stones in use.

Digester 18 -- in use – seal level approx. 2ft below coping stones – good seal – stones in use.

Digester 19 -- in use – seal level approx. 3ft below coping stones – seal weak and bubbling – Bell height high – requires draw down of biogas.

Digester 20 - in use – seal level approx. 3ft below coping stones - seal weak and bubbling – Bell height high – requires draw down of biogas.

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, 3x partially filled & 5x 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

Sludge Screening House

Shutter doors open at time of inspection – contractor hosing down area. No local odours.

Imported Sludge

No data regarding imports 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).

Skips

1x empty open large skip and 1x large open general waste skip positioned in service road by FST's 71-78.

1x large enclosed general waste skip in Service Road (lower) by Power House.

1x large open rag skip covered with yellow tarpaulin and 2x enclosed rag skips located by PST's 9-12 - awaiting collection.

1x empty small grit slips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

2x open skip in use for transfer materials from mobile screening plant located by Pasteurisation Plant.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 23-25 totally obstructed and Aeration Lane 21 approximately 75% obstructed – requires jetting.

100% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly.

Channels jetted post inspection

Odour Control Unit (OCU) performance monitoring – (14/06/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.272 0.300 0.291	Unknown	Unknown
Main pumping station outlet	0.000	0.2	Yes

	0.000 0.000		
East OCU	0.000 0.000 0.000	0.05	Yes
West inlet OCU	0.000 0.000 0.000	0.05	Yes
Sludge reception inlet	Out of Service	Unknown	Unknown
Sludge reception outlet	Out of Service	0.8	Yes
Thickening plant inlet	0.000 0.000 0.000		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)	0.000 0.000 0.000	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.000 0.000 0.000	0.5	Yes

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 07th June 2018

Attendees: Mr A Devine (London Borough of Hounslow) and Mr M Hussain (Thames Water)

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A –was empty and had dry residue on the tank floor at the hopper end. Hopper 1 was approx 1/3 full, hoppers 2 & 3 were both approx <1/4 full and had started to form a crust on the surface. This tank was noted to be locally odorous.</p> <p>Tank 1B – was empty and clean. Hoppers 1, 2 & 3 were all approx <1/4 full and had started to form a crust on the surface.</p> <p>Tank 2A – was empty and clean. Hoppers 1, 2 & 3 were all approx <1/4 full and had started to form a crust on the surface.</p> <p>Tank 2B – was empty and clean. Hoppers 1, 2 & 3 were all approx 80% full and a scum was noted to have started forming across the surface.</p> <p>Tank 3A –was empty and clean. Hoppers 1, 2 & 3 drained down.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B – was empty and had dry residue on the tank floor at the hopper end. Hopper 1 was approx $\frac{3}{4}$ full, hoppers 2 & 3 were both approx $<\frac{1}{4}$ full and had started to form a crust on the surface. This tank was noted to be locally odorous.

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 – was empty and clean. Hoppers 1, 2 & 3 were all approx $<\frac{1}{4}$ full.

Tank 6B – was empty and clean. Hoppers 1, 2 & 3 were all approx $<\frac{1}{4}$ full and had started to form a crust on the surface.

Tank 7A – was empty and clean. Hoppers 1, 2 & 3 are all shallow hoppers and were full of grit.

Tank 7B – was empty and clean. Hoppers 1, 2 & 3 are all shallow hoppers and were full of grit.

Tank 8A – was empty and clean. Hoppers 1, 2 & 3 were all approx $<\frac{1}{4}$ full.

Tank 8B – was empty and clean. Hoppers 1, 2 & 3 were all approx $<\frac{1}{4}$ full.

Feed Channel - The level of effluent in both feed channels was approximately 5% full of a thick black sludge – no local odour.

Tanker cleans out the channel on a weekly basis

Complaints

The Council received 3 complaints in the preceding week via email

EMAIL:

On the 31st May 2018 at 19:30 an email complaint was received from a resident of Harvesters Close, Isleworth, which is located to the West of the site (ref: 973878). The complainant stated that they have been 'plagued with bad odour almost daily. Having to keep doors and windows shut. It seems sunshine or rain we have this stench'. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Harvesters Close. The Storm tanks are located on the east side of the works and the AM storm water tanks logs recorded all the tanks in use while the PM log recorded uncovered storm tanks 3A to 4B were in use and hoppers 1A to 3B and 6A to 8B required overpumping but that none of the tanks required flushing. The digester records for the 31st May recorded that there were no spills. The odour log for the AM shifts on the 31st May recorded Odour monitoring 11 spiking throughout the day – max 0.037ppm until 15:30 and that Thames Water took the following action: Perimeter around digester checked several times and around E battery finals. No obvious odours found. Digester domes low as gas generation low. The odour log for the PM shift on the 31st May recorded no odour issues and nothing of note on trends. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of and therefore it has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 05th June 2018 at 16:31 an email complaint was received from a

resident of Harvesters Close, Isleworth, which is located to the West of the site (ref: 973824). The complainant stated 'Yet another sunny afternoon having to keep doors and windows shut'. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Harvesters Close. The Storm tanks are located on the east side of the works and the AM storm water tanks logs recorded tanks 4A and 4B were in use and that tanks 1A and 3A needed flushing and hoppers 2B, 6A 8A and 8B required draining while the PM log recorded none of the tanks in use and hoppers 6A, 8A and 8B required overpumping but that none of the tanks required flushing. The digester records for the 05th June recorded that there were no spills. The odour log for both the AM and PM shifts on the 05th June recorded no odour issues and nothing of note on trends. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of and therefore it has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 10th June 2018 at 18:10 an email complaint was received from a resident of Wainwright Grove, Isleworth, which is located to the West of the site (ref: 973998). The complainant stated that 'last week have found the smell coming from Mogden appalling. It has affected me sitting in my garden in these wonderful summer eves and I have spoken to many residents in the area that have felt the same. The smell has severely deteriorated in the last week and am disappointed that Mogden have said they were addressing this yet the awful issue remains'. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes

and digesters are part of the works closest to Wainwright Grove. The Storm tanks are located on the east side of the works and the AM storm water tanks logs recorded that the only uncovered tank that was in use was 4A and that none of the tanks required flushing and none of the hoppers required overpumping while the PM log recorded uncovered tanks 4A and 4B in use, none of the tanks were recorded as requiring flushing and none of the hoppers required overpumping. The digester records for the 10th June recorded that there were no spills. The odour log for both the AM and PM shifts on the 10th June recorded no odour issues and nothing of note on trends, however the PM shift recorded that odour monitors 5, 12 and 13 were showing negative readings. Actions were recorded as being undertaken on the Am shift these were recorded as follows: Odour suppressant unit running on old west PST 9,10 11 and 12 desludge and stocks low (39m³). Area around skips on E battery inlet hosed down. Tim called to set second odour suppressant unit up on E battery aeration lanes. Mia on site as Out of Hours Controller. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of. Based on the actions taken on site it is likely that the source of the odour on this occasion is related to the skips, inlet area, E battery aeration lanes all located on the west side of the site.

MRAG:

On the 07th June 2018 at 16:41 an email complaint was received from MRAG. The original email was received by MRAG on 07th June 2018 at 14:34 from a resident of Wainwright Grove, Isleworth, which is located to the West of the site (ref: 973884). The complainant stated that 'It's been a while since I have complained as regards the stench from Mogden, however I have no choice now as it's so foul I can't breathe outside, nor can I have my windows open. What's going on? It hasn't been like this for a very long time. Please inform of any failures at you plant'. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive

readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Wainwright Grove. The information provided to the Local Authority during the weekly inspection stated that due to a plant shut down there is no storm tank logs or digester records for the 07th June 2018. The odour log for the AM shift stated that there were no odour spikes or odour problems, however Primary Settlement Tanks (PST) 9, 10, 11 and 12 were recorded as very smelly and that PSTs 9 and 12 had been back flushed and PST 9 is pumping but PST 12 is not pumping. The action recorded by Thames Water on the log is that the day works team were called to unblock PST 9 and 12. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 08th June 2018 at 14:06 an email complaint was received from MRAG. The original email was received by MRAG on 25th March 2018 at 18:45 from a resident of Kneller Gardens, Isleworth, which is located to the South West of the site (ref: 973916). The complainant stated that there was a 'Really bad neat sewage smell in Kneller Gardens for 4 days – Friday 16th March-Monday 19th March, all four days all day long'. Due to the delay in receiving the complaint it has not been possible on this occasion to inspect the odour traces. The digesters are part of the works closest to Kneller Gardens. The Storm tanks are located on the east side of the works and the AM storm water tanks logs recorded that none of the uncovered tanks were in use and that none of the tanks required flushing and that only hoppers 1A, 6A, 8A and 8B required overpumping while the PM log recorded uncovered tanks 4A and 4B in use, none of the tanks were recorded as requiring flushing and hoppers 1A, 6A, 8A and 8B required overpumping. The digester records for the 25th March recorded that there were no spills. The odour log for both the AM shift on the 25th March recorded no odour spikes and no other issues. The PM shifts on the 25th March recorded Odour monitor 10 peaked at 0.019ppm between 18:27 to 18:42. Odour monitor 4 peaked at 0.019ppm between 22:46pm to

23:19pm. Odour monitor 4 also peaked at 0.022ppm between 00:34am to 00:49am. Odour monitor 7 peaked at 0.021ppm between 21:41pm to 22:40pm. Odour detected from PAS area. Unable to identify exact source. OCU 12 running. Odour suppression units running in thickening area already. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of. Based on the information provided in the odour log it is likely that the odour complained of on this occasion was related to the odour detected in the PAS area which could relate to elevated readings recorded by Odour monitor 10 near the time of the complaint. This monitor is located to the south/southwest of the site.

On the 09th June 2018 at 12:33 an email complaint was received from MRAG. The original email was received by MRAG on 09th June 2018 at 11:32 from a resident of Kneller Gardens, Isleworth, which is located to the South West of the site (ref: 973997). The complainant stated that 'I am a resident in Kneller Gardens. I am emailing to make you aware that the odour in the area has been strong for about 3 days. It is unpleasant and can at times be smelt inside the house'. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Kneller Gardens. The Storm tanks are located on the east side of the works and the AM and PM logs recorded that the only uncovered tanks that were in use was tanks 4A and 4B and that none of the tanks required flushing and none of the hoppers required overpumping. The digester records for the 9th June recorded that there were no spills. The odour log for both the AM and PM shifts on the 9th June recorded no odour issues and nothing of note on trends, however the AM shift recorded PSTs 9, 10,11 and 12 were smelly and that sludge stocks reduced in PST 9 and 12. Thames Water recorded that an odour unit is running in this area. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of. It has not been possible

on this occasion to identify the source of odour complained of by the resident.

TELEPHONE:

On the 9th June 2018 at approx 17:25 a telephone complaint was received from a resident of Harvesters Close, Isleworth (ref: 974226). The duty officer contacted the complainant at 17:37 'who stated that the odour had ceased'. The duty officer explained that if the odour returned and was affecting them at their property to contact the out of hours' team again. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Kneller Gardens. The Storm tanks are located on the east side of the works and the AM and PM logs recorded that the only uncovered tanks that were in use was tanks 4A and 4B and that none of the tanks required flushing and none of the hoppers required overpumping. The digester records for the 9th June recorded that there were no spills. The odour log for both the AM and PM shifts on the 9th June recorded no odour issues and nothing of note on trends, however the AM shift recorded PSTs 9, 10,11 and 12 were smelly and that sludge stocks reduced in PST 9 and 12. Thames Water recorded that an odour unit is running in this area. As the storm tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On the 10th June 2018 at approx 14:09 a telephone complaint was received from a resident of Harvesters Close, Isleworth (ref: 974228).

The duty officer contacted the complainant at 14:30 who stated that the odour was not present. The Duty Officer stated that the odour would need to be present and affecting them at their property' The complainant then stated that he would like a visit and the odour is currently coming and going. The duty officer visited the area at approximately 15:23 and took H²S readings. The average of these readings was 0.00ppm. A subjective assessment of the odour was also made and odour was noted to be present. While on site the Duty Officer contacted the Thames Water Out of Hours Controller (OHC) and explained the situation. The Thames Water OHC confirmed that they would contact site and if required make a site visit. The Thames Water OHC called the Duty Officer back and confirmed that they were on site and had carried out the following actions: Area around skips on E battery inlet hosed down and set second odour suppressant unit up on E battery aeration lanes. During the inspection, the odour trends were inspected for the time of the complaint. The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was made. The new inlet, aeration lanes and digesters are part of the works closest to Wainwright Grove. The Storm tanks are located on the east side of the works and the AM storm water tanks logs recorded that the only uncovered tank that was in use was 4A and that none of the tanks required flushing and none of the hoppers required overpumping while the PM log recorded uncovered tanks 4A and 4B in use, none of the tanks were recorded as requiring flushing and none of the hoppers required overpumping. The digester records for the 10th June recorded that there were no spills. The odour log for both the AM and PM shifts on the 10th June recorded no odour issues and nothing of note on trends, however the PM shift recorded that odour monitors 5, 12 and 13 were showing negative readings. Actions were recorded as being undertaken on the Am shift these were recorded as follows: Odour suppressant unit running on old west PST 9,10 11 and 12 desludge and stocks low (39m³). Area around skips on E battery inlet hosed down. Tim called to set second odour suppressant unit up on E battery aeration lanes. Mia on site as Out of Hours Controller. As the storm

tanks are located on the east side of the site it is unlikely that these were the cause of the odour complained of. Based on the actions taken on site and the site visit made by the Duty officer and the Updates from the Thames Water OHC it is likely that the source of the odour on this occasion is related to the skips, inlet area, E battery aeration lanes all located on the west side of the site.

On the 10th June 2018 at approx 14:10 a telephone complaint was received from a resident of Harvesters Close, Isleworth (ref: 974229). The complainant was contacted by the duty Officer at 14:30 in an attempt to confirm the odour was still apparent and in order to witness the nuisance however the number that the duty officer was given was incorrect as it went through to a member of the public that did not make the complaint. The number was confirmed with the out of hours call centre. However, the duty officer did make a visit to the area in relation to another complaint, please see details of this above.

On the 10th June 2018 at approx 16:24 a telephone complaint was received from a resident of Harvesters Close, Isleworth (ref: 974230). The duty officer contacted the complainant at 16:27 who stated that ' the odour for the last two weeks had been a really disgusting bad odour and that there had been a much stronger odour from Mogden. The Duty Officer explained that they had been out to the area only recently (15:23) to take readings in Harvesters Close and that they were not shown to be excessive. The Duty Officer then explained that they had identified odour while on site and had contacted the Thames Water OHC. Full details of this can be seen above, including the potential source of the odour complained of.

Odour Monitors

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

*reading showing a date and time of 6/06/18 15:53. May indicate an issue with this monitor.

Monitor 1	0.005	ppm	12:45
Monitor 2	0.003	ppm	12:45
Monitor 3	0.000	ppm	12:45
Monitor 4	0.000*	ppm	12:45
Monitor 5	0.004	ppm	12:45
Monitor 6	0.003	ppm	12:45
Monitor 7	0.006	ppm	12:45
Monitor 8	0.005	ppm	12:45
Monitor 9	0.005	ppm	12:45
Monitor 10	0.000	ppm	12:45
Monitor 11	0.005	ppm	12:45
Monitor 12	0.000	ppm	12:45
Monitor 13	0.003	ppm	12:45

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

Wednesday 30th May 2018

Observations AM: No odour spikes. No other issues.

Actions: None.

Observations PM: Odour monitor 5 – 2 spikes at 17:58 (0.017ppm) but less than 15 minutes and 22:43 (0.018ppm) but less than 15 minutes. Odour monitor 9 spiked at 19:30 (max 0.020ppm) but less than 15 minutes' duration.

Actions: None.

Thursday 31st May 2018

Observations AM: Odour monitoring 11 spiking throughout the day – max 0.037ppm until 15:30.

Actions: Perimeter around digester checked several times and around E battery finals. No obvious odours found. Digester domes low as gas make low.

Observations PM: No odours reported or found. No spikes on trends.

Actions: None.

Friday 1st June 2018

Observations AM: Odour monitor 11 spiked to max 0.022 ppm at 09:47am until 10:47am. Odour monitor 11 spiked to max 0.024ppm at 12:17pm to 13:14pm.

Actions: Area checked around digester. No gassing off found. Nothing of note found around E battery final settlement tanks.

Observations PM: No odour spikes. No other issues.

Actions: None.

Saturday 2nd June 2018

Observations AM: Odour monitor 8 spiked to 0.021ppm at 10:15am but less than 15 minutes. Odour monitor 1 spiked to 0.054ppm at 14:24pm but less than 15 minutes.

Actions: None.

Observations PM: No observations made on sheet.

Actions: None.

Sunday 3rd June 2018

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

Actions: None.

Observations PM: No odour spikes. No other issues

Actions: None.

Monday 4th June 2018

Observations AM: Odour monitors 1 to 13 no spikes.

Actions: None.

<p>Observations PM: No odour spikes. No other issues. Actions: None.</p> <p>Tuesday 5th June 2018 Observations AM: Odour monitor 1 to 13 no spikes. Actions: None. Observations PM: No odour spikes. Actions: None.</p> <p>Wednesday 6th June 2018 Observations AM: Odour monitor 1 to 13 no spikes. Actions: None. Observations PM: No odour issues. Nothing to report on trends. Actions: None.</p>	
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Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3	All units in m ³		
OMP limit	500					
02/06/18	1248	1256	305	2809	3083	5892
03/06/18	1206	1393	183	2782	5237	8019
04/06/18	1245	1969	0	3214	4569	7783

The sludge stock levels for the West side circular primary settlement tank 1 were NOT compliant with the OMP trigger level (500m³) for all of the dates for which data has been provided.

While on site Thames Water stated that there was a blockage on final settlement tank 9 which caused a build-up of sludge in these tanks. Thames water advised that this has now been addressed.

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.

Digesters

Digesters 1-4 - Out of use (permanent).

Digester 5 - in use – good seal with no signs of spillages.

LBH notified.

Digester 6 - in use - good seal with no signs of spillages.

Digester 7 - in use - seal weak watery and gassy in some part. No signs of spillages at time of inspection, however this digester had started gassing off.

Digester 8 - in use - seal weak watery but stable. No signs of spillages.

Digester 9 - in use - seal weak watery but stable. No signs of spillages.

Digester 10 - in use - seal weak watery but stable. No signs of spillages.

Digester 11 - in use - seal weak watery but stable. No signs of spillages.

Digester 12 - in use - seal weak watery but stable. No signs of spillages.

Digester 13 - Out of use.

Digester 14 - Out of use.

Digester 15 - in use - seal weak watery but stable. There were signs of an historic spillage on the copping stones. Thames Water advised that they would clean it up while on site.

Digester 16 - Out of use.

Digester 17 - in use – good seal. No signs of spillages.

Digester 18 - in use - seal thick and stable (Pellets used). No signs of spillages.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 19 - in use - seal weak watery but stable. No signs of spillages.

Digester 20 - in use - seal weak watery but stable. No signs of spillages.

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

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx $\frac{1}{4}$ of its length on the nearside channel with thick sludge.

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.

Sludge Screening House

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

Imported Sludge

Eight imports of 35m³ daily for preceding week (Monday - Friday).

Final Settlement Tanks East Side of Works

Tanker cleans out the channel on a weekly basis

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

Skips

2 x empty 14yd skip (Grit house) one empty and uncovered and one for general waste. There was also one rag skip which was open and uncovered.

2 x 14yd open skip empty and uncovered.

East Side Screen House

All doors closed at time of inspection.

Pasteurisation Plant

The pasteurisation plant is in service and 9 of 12 streams are running.

West Side Aeration Lanes (Old)

No issues appeared evident.

New Works (West Side)

Feed channel for aeration lanes 20 to 22 were blocked and a thick crust had formed on the surface. Feed channel for aeration lanes 23 to 25 were blocked and were noted to be odorous.

The aeration lanes were noted to be generally covered with a “thick fluffy” coverage across surface –sprinklers were in operation at time of inspection. However at the inlet for these tanks they were blocked and the surface was covered with a thick solid scum including rag which was noted to be odorous.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Work carried out post inspection to remove blockages

These odour issues were raised with Thames Water during the inspection.

Odour Control Unit (OCU) performance monitoring - (06/06/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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	No data	0.8	Unknown*
Thickening plant inlet	0.00 0.00 0.00	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown**
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	No data	0.6	Unknown***
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurization	0.00	0.5	Yes

Plant)	0.00 0.00			
<ul style="list-style-type: none">• * Import screens currently out of use and therefore OCU readings not recorded.• ** Readings not provided by Thames Water• *** Readings not provided by Thames Water				



Mogden Sewage Treatment Works

TW Site Inspection

<p>Date of inspection: 31st May 2018</p>	
<p>Attendees: Mr L Phillips (London Borough of Hounslow) and Mr M Hussain (Thames Water)</p>	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p><u>Tank 1A</u> Tank empty slight sludge build up tank requires flushing. Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 1B</u> Tank empty and clean. Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 2A</u> Tank empty and flushed clean. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p><u>Tank 2B</u> Tank empty and clean. Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 3A</u> Tank full. No odours, amajets not active.</p> <p><u>Tank 3B</u> Tank full. No odours, amajets not active.</p> <p><u>Tanks 4A, 4B, 5A & 5B</u> - which are covered and odour controlled were all empty. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6A Tank empty and clean. Hoppers 1, 2 & 3 all drained down to lowest point.

Tank 6B Tank empty needs flushing sludge in tank. Hoppers 1, 2 & 3 require draining no odours detected.

Tank 7A Tank empty needs flushing. Hoppers 1 & 2 need draining.

Tank 7B. Tank empty and clean. Hoppers 1, 2 & 3 all drained down to lowest point.

Tank 8A. Tank empty and flushed clean. Hoppers 1, 2 & 3 full of effluent water, surface of green algae, no odour detected.

Tank 8B Tank empty and clean. Hoppers 1, 2 & 3 all drained down to lowest point.

Feed Channel - The level of effluent in both feed channels was low, approximately 5-10%, almost bottomed out in places. Some grit and sludge, no local odour.

Tanker cleans out the channel on a weekly basis

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: (approx 12:30 on 31st May 2018).

Monitor 1	0.005	ppm	12:30
Monitor 2	0.004	ppm	12:30
Monitor 3	0.000	ppm	12:32
Monitor 4	0.000	ppm	12:32
Monitor 5	0.004	ppm	12:33
Monitor 6	0.005	ppm	12:33
Monitor 7	0.005	ppm	12:33
Monitor 8	0.006	ppm	12:34
Monitor 9	0.005	ppm	12:34
Monitor 10	0.000	ppm	12:34
Monitor 11	0.002	ppm	12:34
Monitor 12	0.004	ppm	12:34
Monitor 13	0.005	ppm	12:34

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

Wednesday 23rd May 2018:

AM – No odour spikes no issues. No odour problems

Actions: None noted.

PM – No odour issues.

Actions: None noted.

Thursday 24th May 2018:

AM – No odour issues.

Actions: None noted.

PM – No spikes on trends. No odour issues on site.

Actions: None noted.

Friday 25th May 2018:

AM – No odour issues reported or found. No spikes on trends.

Actions: None noted.

PM – No odour spikes. No odour issues..

Actions: None noted.

Saturday 26th May 2018

AM: No odour issues found or reported. No spikes on trends.

Actions: None noted.

PM: Not provided.

Actions: N/A

Sunday 27th May 2018:

AM: No odour issues.

Actions: None noted.

PM: Odours showing on monitors 1 and 5 areas checked. Smell coming from storm tanks. All tanks full after storm.

Actions: Storm tanks full and returning.

Monday 28th May 2018:

AM: No odour spikes. No other issues.

Actions: None noted.

PM: No odour spikes. No other issues.

Actions: Storm tanks returning.

Tuesday 28th May 2018:

AM: 0.017 OM9 11:18-11:31 no other issues.

Actions: None noted.

PM: No odour issues.

Actions: None noted.

Wednesday 16th May 2018:

AM: No odour spikes. No other issues.

Actions: None noted.

PM: Odour monitor No5 2 spikes 17:58 at 0.017ppm but 15 mins duration. 22:43 at 0.018ppm but 15 mins duration. Odour monitor No9 spiked at 19:30 but 15 minutes duration max 0.020ppm.

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					
25/05/18	1377	1776	595	3748	2931	6679
26/05/18	1374	2048	450	3872	3752	7624
30/05/18	1295	1588	450	3333	1592	4925

The sludge stock levels for the West side circular primary settlement tanks 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 within three days.

Digesters

Digesters 1-4 Out of use (permanent).

Digester 5 Was in use had a weak sloppy seal. No evidence of spillage

Digester 6 Was in use had a weak sloppy seal. No evidence of spillage

Digester 7 Was in use had a weak sloppy seal. No evidence of spillage. Digester gassing off slightly.

Digester 8 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 9 Was in use had a weak sloppy seal. No evidence of

LBH notified

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

spillage.

Digester 10 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 11 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 12 Was in use had a weak sloppy seal. No evidence of spillage.

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 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 16 Out of use, empty and clean. Contractor on site undertaking maintenance.

Digester 17 Was in use. Good seal pellets in use. No evidence of spillage.

Digester 18 Was in use. Good seal pellets in use. No evidence of spillage.

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

Digester 20 Was in use and had a weak sloppy seal. No evidence of spillage.

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

Sludge Screening House

Shutter doors closed at time of inspection. No local odours.

Imported Sludge

Four imports of 35m³ 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). All tanks in service and no issues to report.

Skips

1x large skips covered general waste skip.

1x small open skip empty covered.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 60% obstructed in one channel, requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 23-25 totally obstructed and Aeration Lane 21 approximately 75% obstructed – requires jetting.

Approximately 100% of tanks have again developed “fluffy” coverage across surface, worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (17/05/18)

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



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 24 th May 2018	
Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr Manzoor Hussain (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – 2B - Tank level was approximately 80% full of effluent due to earlier rainfall. Amajets were observed to be in operation. The effluent was murky in some areas generally across all four tanks. No odours in this locality.</p> <p>Tank 3A – Tank was empty. Hoppers 1, 2 & 3 needed draining down. Amajets are in order.</p> <p>Tank 3B – Tank was empty. Hoppers 1, 2 & 3 needed draining down. Amajets are in order.</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 working.</p> <p>Tank 6A – 7B – Tank levels were approximately 80% full of effluent</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

due to earlier rainfall. Amajets were observed to be in operation. The effluent was murky in some areas generally across all four tanks. No odours in this locality.

Tank 8A – Hoppers were full of effluent and needed draining. There was effluent across ¼ of the tank however the rest of the tank was clear of grit and odour. The level of effluent in the tank was below the amajet hose.

Tank 8B – Hoppers 1, 2 and 3 were full of effluent and needed draining down. The tank was clear and amajets were all in order.

Feed Channel - The level of effluent in both feed channels was approximately 40% full of murky effluent no signs of deposits or sludge – no local odour.

Complaints

The Council received no 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	0.006	ppm	13:00
Monitor 2	0.003	ppm	13:00
Monitor 3	0.000	ppm	13:00
Monitor 4	0.000	ppm	13:00
Monitor 5	0.000	ppm	13:00
Monitor 6	0.006	ppm	13:00
Monitor 7	0.005	ppm	13:00

Monitor 8	0.006	ppm	13:00
Monitor 9	0.004	ppm	13:00
Monitor 10	0.000	ppm	13:00
Monitor 11	0.003	ppm	13:00
Monitor 12	0.004	ppm	13:00
Monitor 13	0.005	ppm	13:00
Wind Speed	64.000	mph	13:00
Wind Direction	7.000	Deg	13:00

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

Thursday 17th May 2018

Observations AM: No Spikes in Trends.

Actions: None.

Observations PM: OM5 spiked to 0.021 at 00:56 (under 15min).

Actions: None.

Friday 18th May 2018

Observations AM: No Spikes in Trends.

Actions: None.

Observations PM: OM7 spiked to 0.016ppm at 22:28-23:22.

Actions: None.

Saturday 19th May 2018

Observations AM: No odour spikes.

Actions: None.

Observations PM: No odour spikes.

Actions: None.

Sunday 20th May 2018

Observations AM: No odour spikes.

Actions: None.

Observations PM: No odour issues on site. No spikes on trends.
Actions: None.

Monday 21st May 2018

Observations AM: No odour issues on site. No spikes on trends.
Actions: None.

Observations PM: No odour issues on site. No spikes on trends.
Actions: None.

Tuesday 22nd May 2018

Observations AM: No odour issues on site. No spikes on trends.
Actions: None.

Observations PM: No odour issues on site. No spikes on trends.
Actions: None.

Wednesday 23rd May 2018

Observations AM: No odour issues on site. No spikes on trends.
Actions: None.

Observations PM: No odour issues on site. No spikes on trends.
Actions: None.

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					
18/05/18	1467	948	3752	6167	450	6617
21/05/18	1070	1092	328	2490	2266	4756
23/05/18	1070	1776	450	3296	3268	6564

The sludge stock levels for the West side circular primary settlement tank 1 were NOT 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 within three days.

Digesters

Digesters 1-4 - Out of use (permanent).

Digester 5 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable. No signs of spillages.

Digester 6 - in use - seal level approx. 1ft below coping stones - seal

LBH notified.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

sludgy and stable. No signs of spillages.

Digester 7 - in use - seal level approx. 1ft below coping stones - seal weak watery and gassy in some part. No signs of spillages at time of inspection.

Digester 8 - in use - seal level approx. 1ft below coping stones - seal thick and sludgy but stable. No signs of spillages.

Digester 9 - in use - seal level approx. 1ft below coping stones - seal thick and sludgy but stable. No signs of spillages.

Digester 10 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable. No signs of spillages.

Digester 11 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable. No signs of spillages.

Digester 12 - in use - seal level approx. 1ft below coping stones - seal thick and sludgy. No signs of spillages.

Digester 13 - Out of use.

Digester 14 - Out of use.

Digester 15 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable. No signs of spillages.

Digester 16 - Out of use.

Digester 17 - in use - seal level approx. 1ft below coping stones - seal weak watery but stable. No signs of spillages.

<p>Digester 18 - in use - seal level approx. 1ft below coping stones - seal thick and stable (Pellets used). No signs of spillages.</p> <p>Digester 19 - in use - seal level approx. 1ft below coping stones - seal thick and stable (Pellets used). No signs of spillages.</p> <p>Digester 20 - in use - seal level approx. 1ft below coping stones - seal thick and stable. No signs of spillages in use.</p> <p>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.</p>	
<p><u>GENERAL</u></p> <p><u>Return Activated Sludge Channel</u> The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx <math><1/4</math> of its length on the nearside channel with thick sludge.</p> <p><u>West side primary settlement tanks (PST)</u> 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.</p> <p><u>Sludge Screening House</u> Shutter doors closed at time of inspection - no local odours.</p> <p><u>Imported Sludge</u> Eight imports of 35m³ daily for preceding week (Monday - Friday).</p>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). Tank 71 drained down and out of service.

Skips

1 x empty 14yd skip (Grit house) empty and uncovered.
2 x 14yd open skip empty and uncovered.

East Side Screen House

All doors closed at time of inspection.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 20% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 80% free flowing – requires jetting.
Approximately 60% of tank had developed “thick fluffy” coverage across surface –sprinklers were in operation at time of inspection.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring - (18/04/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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	0.000 0.000 0.000	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)	0.00 0.00	0.5	Yes

	0.00			
OCU 12 (Pasteurization Plant)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 17 th May 2018	
Attendees: Mr Leroy Phillips (London Borough of Hounslow) and Mr Manzoor Hussain (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p><u>Tank 1A</u> – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 1B</u> – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 2A</u> – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p><u>Tank 2B</u> – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 3A</u> – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tank 3B</u> – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p><u>Tanks 4A, 4B, 5A & 5B</u> - which are covered and odour controlled were</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

all empty - unable to gauge condition as lighting system still not working.

Tank 6A – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.

Tank 6B – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.

Tank 7A – Tank empty and flushed clean. Hoppers 1, 2 & 3 full (with water leaking back to tank) issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 7B – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.

Tank 8A – Tank empty and flushed clean. Hoppers 1, 2 & 3 full of effluent water – surface of green algae no odour detected.

Tank 8B – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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.

Tanker cleans out the channel on a weekly basis

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	0.005	ppm	12:44
Monitor 2	0.005	ppm	12:44
Monitor 3	0.000	ppm	12:44
Monitor 4	0.000	ppm	12:44
Monitor 5	0.004	ppm	12:44
Monitor 6	0.007	ppm	12:44
Monitor 7	0.007	ppm	12:44
Monitor 8	0.006	ppm	12:44
Monitor 9	0.006	ppm	12:44
Monitor 10	0.000	ppm	12:44
Monitor 11	0.005	ppm	12:44
Monitor 12	0.005	ppm	12:44
Monitor 13	0.006	ppm	12:44

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

Wednesday 9th May 2018

AM – No odour spikes no issues.

Actions: None noted.

PM – No odour spikes no other issues.

Actions: None noted.

Thursday 10th May 2018

AM: OM1–5 = 0.017 at 16:58 to 17:13.

7 = 0.016 at 13:57 to 14:11.

7 = 0.021 at 10:57 to 11:11.

Actions: None noted.

PM: No odour spikes. No other issues.

Actions: None noted.

Friday 11th May 2018

AM: OM1–5 No spikes. OM6–13 No spikes.

Observations: No odour spikes. No other issues.

Actions: None noted.

PM: No odours reported or found. No spikes on trends.

Actions: None noted.

Saturday 12th May 2018

AM: OM1–5 = Mon 5 = 0.015 at 02:28–2:41.

OM6–13 = Zero spikes.

PM: OM1 spiked at 19:02–19:15 0.031ppm but less than 15 minutes duration.

Actions: Filling storm tanks.

Sunday 13th May 2018

AM: OM1–5 = None. OM6–13 = None

Actions: None noted.

PM: Two spikes from OM9 at 22:09 and 22:39, both less than 15 minutes duration max 0.016ppm.

Actions: None noted.

Monday 14th May 2018

AM: No odour issues nothing to report on trends.

Actions: Storm Channel No 6 SWT flushed with effluent.

PM: No odour issues found or reported. No spikes on trends.

Actions: None noted.

Tuesday 15th May 2018

AM: OM9 spiked to 0.017PPM at 08:29 to 08:44.

Actions: None noted.

PM: OM1-5 = no spikes. OM6–13= no spikes.

Actions: None noted.

Wednesday 16th May 2018

AM: No odour issues nothing to report on trends.

Actions: None noted.

PM: OM 1–5 no spikes. OM6-13 no spikes.

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					
13/05/18	244	1963	450	2657	8261	10918
14/05/18	813	1401	450	2664	4900	10779
16/05/18	108	1176	450	1734	3268	5002

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 within three days.

LBH notified.

Digesters

Digesters 1-4 – Out of use (permanent).

Digester 5 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 6 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 7 Was in use had a weak sloppy seal. No evidence of spillage. Digester gassing off slightly.

Digester 8 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 9 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 10 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 11 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 12 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 13 Out of use. Empty and clean. Contractor on site undertaking maintenance.

Digester 14 Was in use had a weak sloppy seal. No evidence of spillage

Digester 15 Was in use had a weak sloppy seal. No evidence of spillage.

Digester 16 Out of use. Empty and clean. Contractor on site undertaking maintenance.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 17 In use - Good seal pellets in use. No evidence of spillage.

Digester 18 In use - Good seal pellets in use. No evidence of spillage.

Digester 19 Out of use. Empty and clean. Contractor on site undertaking maintenance.

Digester 20 Was in use had a weak sloppy seal. No evidence of spillage.

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

Sludge Screening House

Shutter doors closed at time of inspection. No local odours.

Imported Sludge

Four imports of 35m³ 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). All tanks in service and no issues to report.

Skips

2x large skips covered general waste skip.
1x small open skip empty covered.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues
Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 60% obstructed in one channel - requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 23-25 totally obstructed and Aeration Lane 21 approximately 75% obstructed - requires jetting.

Approximately 100% of tanks have again developed “fluffy” coverage across surface, worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (17/05/18)			
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			



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 10 th May 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain (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 - approximately 25% of tank covered by dried grit and sludge – 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 dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 25% of tank covered by dried grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Tank 3B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to bottom level.

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 empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 20% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level

Tank 7A – Tank empty and flushed clean. Hoppers 1, 2 & 3 full (with water leaking back to tank) issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

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

Tank 8A – Tank empty and flushed clean. Hoppers 1, 2 & 3 full of effluent water – surface of green algae.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by dried grit and sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

Tanker cleans out the channel on a weekly basis

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	0.005	ppm	15:30
Monitor 2	0.004	ppm	15:30
Monitor 3	0.000	ppm	15:30
Monitor 4	Empty Value	ppm	15:30
Monitor 5	0.006	ppm	15:30
Monitor 6	0.005	ppm	15:30
Monitor 7	0.007	ppm	15:30
Monitor 8	0.006	ppm	15:30
Monitor 9	0.006	ppm	15:30
Monitor 10	0.000	ppm	15:30
Monitor 11	0.007	ppm	15:30
Monitor 12	0.005	ppm	15:30
Monitor 13	0.005	ppm	15:30
Wind Speed	6	mph	
Wind Direction	270°		

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

Thursday 3rd May 2018:

AM – Warm with Sun and light cloud.

All OMU's in use.

Observations: "OM9 0.018 14:00-14:15 (15 mins). No other issues."

Actions: None noted.

PM – None noted.

No OMU data noted.

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

Actions: None noted.

Friday 4th May 2018:

AM – Hot with Sun and light cloud.

All OMU's in use.

Observations: "OM9 0.016 16:31-16:42 (under 15 mins). No other issues."

Actions: None noted.

PM – Warm with Sun and light cloud.

OMU 11 out of use.

Observations: "Odour monitor 9 – 18:46/19:01 (0.021ppm) spike investigated. No odour identified."

Actions: None noted.

Saturday 5th May 2018:

AM – Hot with Sun and partial cloud.

All OMU's in use.

Observations: "No odour spikes. No other issues."

Actions: None noted.

PM – Warm with Sun and heavy cloud.

All OMU's in use.

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

Actions: None noted.

Sunday 6th May 2018:

AM – Clear Sun.

All OMU's in use.

Observations: "No odour spikes. No other issues."

Actions: None noted.

PM – Warm with Sun and light cloud,

All OMU's in use.

Observations: "Monitor 9 – one spike peaked @ 0.021ppm 03:31-03:47. No odour identified."

Actions: None noted.

Monday 7th May 2018:

AM – Hot with clear Sun.

OMU - All OMU's in use.

Observations: “No odour issues found or reported, no spikes on Trends.”

Actions: None noted.

PM – Cool with partial Sun and heavy cloud.

All OMU's in use.

Observations: “Monitor5 one spike 0.030ppm 03:07/04:07. Odour investigation carried out.”

Actions: None noted.

Tuesday 8th May 2018:

AM – Hot with clear Sun.

All OMU's in use.

Observations: “No odour issues reported or found.”

Actions: None noted.

PM – Sun with light cloud.

All OMU's in use.

Observations: “OM8 0.018 21:44-21:51 (7 mins.). No other issues.”

Actions: None noted.

Wednesday 9th May 2018:

AM – No observations noted.

No OMU data noted.

Observations: “No odour spikes. No issues.”

Actions: None noted.

PM – Cool with partial Sun, heavy cloud and rain.

All OMU's in use.

Observations: “No odour spikes. No other 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					
04/05/18	59	1903	783	2745	8590	11335
08/05/18	0	2072	450	2522	8259	10779
09/05/18	304	1383	450	2137	7591	9728

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 within three days.

As LBH note, this has not been required in the last week.

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. 4ft below coping stones – seal weak and bubbling.

Digester 6 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling – evidence of dried spill requiring clean-up.

Digester 7 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring clean-up – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 10 – in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 4ft below coping stones – seal weak and bubbling vigorously – evidence of dried spill from tank requiring clean-up.

Digester 12 - in use – seal level approx. 2ft 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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 15 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling – evidence of dried spill from tank requiring clean-up.

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

Digester 17 - in use – seal level approx. 2ft below coping stones – good seal – stones in use.

Digester 18 - in use – seal level approx. 2ft below coping stones – good seal – stones in use.

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

Digester 20 - in use – seal level approx. 2ft below coping stones - seal weak and bubbling.

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, 1x partially filled & 5x 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

Sludge Screening House

Shutter doors closed at time of inspection. No local odours.

Imported Sludge

Four imports of 35m³ 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). Tank 71 drained down and out of service.

Skips

2x open skips in use for transfer materials from mobile screening plant positioned in service road by FST's 71-78 (quantity of spilt sludge all along gully alongside screener stretching all the way to SWT's – requires hosing down).

1x large open general waste skip as above.

1x empty small grit skips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

2x open skip in use for transfer materials from mobile screening plant located by Pasteurisation Plant.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Sludge spill cleaned and area hosed down post inspection. Skips removed post inspection.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 60% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 23-25 totally obstructed and Aeration Lane 21 approximately 75% obstructed – requires jetting.

Approximately 100% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (07/05/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	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	0.01 0,00 0.00	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.10 0.10	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)	0.00 0.20 0.10	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.10 0.10 0.00	0.5	Yes



TW Site Inspection

Date of inspection: 02 nd May 2018	
Attendees: Mr A Devine (L B Hounslow) & 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 had dry residue on the tank floor at the hopper end. Hopper 1 was approx 1/3 full, hoppers 2 & 3 were both approx <1/4 full and had started to form a crust on the surface.</p> <p>Tank 1B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full and had started to form a crust on the surface.</p> <p>Tank 2A was empty. Hoppers 1 & 2 were approx <1/4 full and had started to form a crust on the surface, hopper 3 was empty.</p> <p>Tank 2B had grit in the bottom of the tank. Hoppers 1, 2 & 3 were all approx <1/2 full and had started to form a crust on the surface.</p> <p>Tank 3A was empty. Hoppers 1 & 3 were all approx <1/4 full and had started to form a crust on the surface. Hopper 2 was drained down.</p> <p>Tank 3B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty with some residual grit. Hoppers 1, 2 & 3 were all approx 1/2 full and had started to form a crust on the surface.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Tank 6B was empty. Hopper 1 was full, hopper 2 was approx ¼ full & hopper 3 was approx ½ full.

Tank 7A was empty. Hoppers 1, 2 & 3 (shallow hoppers) all had large amounts of grit and some effluent in them.

Tank 7B had some water in the tank and covering the hoppers. Hoppers 1, 2 & 3 (shallow hoppers) were all full.

Tank 8A was empty but hoppers 1, 2 & 3 were all full and overflowing water at the hopper end of the tank. A slight odour was noted in the area of this tank.

Tank 8B was empty but hoppers 1, 2 & 3 were all full, at the time of the inspection staff were beginning to over pump them. A slight odour was noted in the area of this tank.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was relatively empty with only a shallow level of effluent along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:00 on 02nd May 2018).

Monitor 1	0.005	ppm
Monitor 2	0.006	ppm
Monitor 3	0.000	ppm
Monitor 4	0.006	ppm
Monitor 5	0.008	ppm
Monitor 6	0.010	ppm
Monitor 7	0.008	ppm
Monitor 8	0.008	ppm
Monitor 9	0.007	ppm
Monitor 10	0.000	ppm
Monitor 11	0.006	ppm
Monitor 12	0.007	ppm
Monitor 13	0.007	ppm

Complaints

The Council received no complaints in the preceding week.

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

Tuesday 24th April 2018

Observations AM No Spikes on trends. No odour issues on site.

Actions: None.

Observations PM Odour monitor 12 showing odour (0.016ppm) at 01:08am to 02:03am. Digester area checked and no odours found. Digester level 26m.

Actions: None.

Wednesday 25th April 2018

Observations AM OM1-5 no spikes. OM6-13 no spikes.

Actions: None.

Observations PM No odour issues. Nothing to report on trends.

Actions: None.

Thursday 26th April 2018

Observations AM No odour issue.

Actions: None.

Observations PM No odour spikes. No other issues.

Actions: None.

Friday 27th April 2018

Observations AM Odour monitors 1 to 13 no spikes.

Actions: None.

Observations PM No information provided on the sheet.

Actions: None.

Saturday 28th April 2018

Observations AM No odour spikes.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

Actions: None.

Sunday 29th April 2018

Observations AM No odour problems. Odour monitors 1, 10 and 13 faulty.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

Actions: None.

Monday 30th April 2018

Observations AM No odour issues on site. No spikes on trends.

Actions: None.

Observations PM Odour monitors 1 to 13 no spikes.

Actions: None.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
28/04/18	135	1860	1261	3256	9935	13191
30/04/18	0	1715	595	2310	7588	9898
01/05/18	0	1899	638	2537	8934	11471

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 5 imports of sludge a day on average 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 & 6 were both in use and had a wet seals.

Digester 7 was in use and had a wet seal that was bubbling off gas, the bell was also very high and spitting on one side of the digester.

Digesters 8, 9, 10, 11 & 12 were all in use all had a very wet seals.

As LBH note, this has not been required in the last week

<p>Digesters 13 & 14 were both out of use.</p> <p>Digester 15 was in use and had a very wet seal.</p> <p>Digester 16 was out of use.</p> <p>Digesters 17, 18, 19 & 20 were all in use and had a very wet seals. A historic spill was noted on the coping stones around digester 17. Thames Water advised that they would take action.</p> <p>Other than Digester 7 the remaining Digesters and bell heights were just below the half way point. Although all Digesters had wet seals they only appeared to be bubbling off minimal amounts of gas.</p> <p>Automatic dosing of anti-foaming agent in now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.</p> </div>
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx <math>\frac{1}{4}</math> of its length on the nearside channel with thick sludge.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). At the time of the inspection all tanks except 71 were in operation.</p>	

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames Water advised that some of the screens were out of service (possibly 3 & 4) due to maintenance requiring the use of a grit dredger. This involved the removal of large amount of grit that was being stored on the east side (see below).

Skips

On the East side there was one 14yds skip which contained a small amount of general rubbish and three 8yds skips that were all full of grit from the grit dredging unit. Odour was minimal but Thames Water were advised that they needed to cover and remove these skips as soon as possible. Thames Water advised that these skips were taken off site at the end of each day.

On the West side there was one 40yds closed bulk carrier & one 20yds open bulk carrier that were both empty. No odour was present in the area.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. Thames Water advised 9 of the 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 (Old)

No issues appeared evident.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

New Works (West Side)

The whole of tanks have again developed a thick "fluffy" coverage across the entire surface that had a thick crust in some areas. This appears no better since the previous inspection and all internal dividing

walls were covered. None of the sprinklers were in operation and odour was becoming evident along the walkway on the north end of the lanes.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged on the surface along its entire length with floating debris and thick sludge that appeared crusty in places.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 03/05/2018

Tanker cleans out the channel on a weekly basis

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



TW Site Inspection

Date of inspection: 26 th April 2018	
Attendees: Mr I Inman (L B Hounslow) & Mr A Haines (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and had dry residue on the tank floor at the hopper end. Hopper 1 was approx 1/3 full, hoppers 2 & 3 were both approx <1/4 full.</p> <p>Tank 1B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 2A was empty. Hoppers 1 & 2 were approx <1/4 full, hopper 3 was empty.</p> <p>Tank 2B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 3A was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tank 3B was empty. Hoppers 1, 2 & 3 were all approx <1/4 full.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was in use and approx <1/4 full.</p> <p>Tank 6B was empty. Hopper 1 was full, hopper 2 was approx 1/4 full & hopper 3 was approx 1/2 full.</p> <p>Tank 7A was empty. Hoppers 1, 2 & 3 (shallow hoppers) all had large amounts of grit and some effluent in them.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Tank 7B was empty. Hoppers 1, 2 & 3 (shallow hoppers) all had large amounts of grit and some effluent in them.

Tank 8A was empty but hoppers 1, 2 & 3 were all full and overflowing water at the hopper end of the tank.

Tank 8B was empty but hoppers 1, 2 & 3 were all full, at the time of the inspection staff were beginning to over pump them.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was relatively empty with only a shallow level of effluent along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 10:36 on 26th April 2018). However, odour monitors 1 & 2 were displaying incorrect times, OM1 displaying 06:25 & OM2 displaying 08:21).

Thames Water advised this will be looked into.

Monitor 1	0.000	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.005	ppm
Monitor 5	0.007	ppm
Monitor 6	0.007	ppm
Monitor 7	0.007	ppm
Monitor 8	0.007	ppm
Monitor 9	0.005	ppm
Monitor 10	-0.025	ppm
Monitor 11	0.008	ppm
Monitor 12	0.007	ppm
Monitor 13	0.006	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 19th April 2018

Observations AM OM8 spiked to 0.021ppm at 10:29-10:41

Actions: none.

Observations PM No odour issues found or reported. No spikes on trends.

Actions: none.

Friday 20th April 2018

Observations AM OM3 spiked to 0.022ppm at 07:01, less than 15 minutes.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Saturday 21st April 2018

Observations AM OM3 spiked to 0.018ppm at 16:45, less than 15 minutes.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Sunday 22nd April 2018

Observations AM No odour issues. Nothing to report on trends.

Actions: none.

Observations PM OM5 0.021ppm between 02:58-03:05. OM8 0.023ppm between 19:27-19:41.

Actions: No source found. No other issues.

Monday 23rd April 2018

Observations AM OM5 0.017ppm between 13:41-13:53.

Actions: none.

Observations PM No odour spikes. No other issues.

Actions: none.

Tuesday 24th April 2018

Observations AM OM1-5 no spikes. OM6-13 no spikes.

Actions: none.

Observations PM No odour issues. Nothing to report on trends.

Actions: none.

Wednesday 25th April 2018

Observations AM OM1-5 no spikes. OM6-13 no spikes.

Actions: none.

Observations PM No odour issues. Nothing to report on trends

Actions: none.

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					
20/04/18	0	1588	783	2371	6247	8618
23/04/18	0	1921	1199	3120	6579	9699
25/04/18	88	2424	577	3001	8926	12015

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 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 are permanently out of use.

As LBH note, this has not been required in the last week.

<p>Digesters 5 & 6 were both in use and had a wet seals.</p> <p>Digester 7 was in use and had a wet seal that was bubbling off gas, the bell was also very high and spitting on one side of the digester.</p> <p>Digesters 8, 9, 10, 11 & 12 were all in use all had a very wet seals.</p> <p>Digesters 13 & 14 were both out of use.</p> <p>Digester 15 was in use and had a very wet seal.</p> <p>Digester 16 was out of use.</p> <p>Digesters 17, 18, 19 & 20 were all in use and had a very wet seals.</p> <p>Other than Digester 7 the remaining Digesters and bell heights just below the half way point. Although all Digesters had wet seals they only appeared to be bubbling off minimal amounts of gas.</p> <p>Automatic dosing of anti-foaming agent in now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.</p> </div>
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx $< \frac{1}{4}$ of its length on the nearside channel with thick sludge.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>

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).

At the time of the inspection all tanks except 71 were in operation.

East Side Screen House

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

Thames Water advised that some of the screens were out of service (possibly 3 & 4) due to maintenance requiring the use of a grit dredger.

This involved the removal of large amount of grit that was being stored on the east side (see below).

Skips

On the East side there was one 14yds skip which contained a small amount of general rubbish and three 8yds skips that were all full of grit from the grit dredging unit.

Odour was minimal but Thames Water were advised that they needed to cover and remove these skips as soon as possible

On the West side there was one 40yds closed bulk carrier & one 20yds open bulk carrier that were both empty.

No odour was present in the area.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection.

Thames Water advised 9 of the 12 streams were in operation.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.
Skips with grit was removed post inspection.

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)

The whole of tanks have again developed a thick “fluffy” coverage across the entire surface that had a thick crust in some areas. This appears no better since the previous inspection and all internal dividing walls were covered. None of the sprinklers were in operation and odour was becoming evident along the walkway on the north end of the lanes.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged on the surface along its entire length with floating debris and thick sludge that appeared crusty in places.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 09/04/2018

Tanker cleans out the channel on a weekly basis

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			

TW Site Inspection

Date of inspection: 19th April 2018

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr David Chowings (Thames Water)

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent . Tank needed sweeping at Top end near Hoppers.</p> <p>Tank 1B – Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent .</p> <p>Tank 2A – Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent .</p> <p>Tank 2B – Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent . Tank needed sweeping at Top end near Hoppers.</p> <p>Tank 3A – Tank empty and flushed. Hoppers 1, 2 & 3 drained down and clear of effluent . Tank empty and flushed clean.</p> <p>Tank 3B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

down to bottom level.

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 was empty and flushed - approximately 5% of tank covered by grit – requires further flushing/ sweeping at Top end. Hoppers 1, 2 & 3 need draining down. .

Tank 6B – Tank empty and flushed - approximately 5% of tank covered by grit – requires a sweep. Hoppers 1, 2 & 3 drained down to bottom level

Tank 7A – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 need further draining down to bottom level

Tank 7B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 need further draining down to bottom level

Tank 8A – Tank 8B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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	0.000	ppm	13:30
Monitor 2	0.006	ppm	13:30
Monitor 3	0.000	ppm	13:30
Monitor 4	0.000	ppm	13:30
Monitor 5	0.000	ppm	13:30
Monitor 6	0.003	ppm	13:30
Monitor 7	0.005	ppm	13:30
Monitor 8	0.004	ppm	13:30
Monitor 9	0.005	ppm	13:30
Monitor 10	0.000	ppm	13:30
Monitor 11	0.000	ppm	13:30
Monitor 12	0.003	ppm	13:30
Monitor 13	0.000	ppm	13:30

Wind Speed	0.000	mph	13:30
Wind Direction	237.000	Deg	13:30

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

Thursday 12th April 2018

AM – Cold and Cloudy

Observations: OM 3 spiked at 14:22 (0.022ppm) under 15 minute duration

Actions: No action

PM – Cold and Cloudy .

All OMU's in use.

Observations: OM 5 spiked at 22:49 (0.016ppm)

Actions: Areas checked no odours detected.

Friday 13th April 2018

AM – Cool with partial cloud

All OMU's in use.

Observations: No odour problems.

Actions: None noted.

PM – Cool and Cloudy .

Observations: Sludge spill in PAS Screen house- Day Team to clear up No odours spikes.

Actions: None noted.

Saturday 14th April 2018

AM – Warm and Sunny

All OMU's in use.

Observations: Sludge spillage in PFT area – No further actions noted
No odour spikes

Actions: None noted.

PM – Cold with Partial cloud and rain.

All OMU's in use.

Observations:

Actions: None noted.

Sunday 15th April 2018 2018

AM – Cool and partial cloud with some rain

All OMU's in use.

Observations: No odour or spikes

Actions: No other issues

PM – None noted.

All OMU's in use.

Observations: No odour or spikes

Actions: None noted.

Monday 16th April 2018

AM – Cool temperature

OMU – All in use

Observations: No odours or spikes

Actions: None noted.

PM – Cool temperature

OMU- All in use

Observations: No other issues found

Actions: None noted.

Tuesday 17th April 2018

AM – Temperature and weather conditions not noted

OMU- No observations.

Observations: OM12 spiked to 0.019 for less than 15 minute – Smelly over the PAS area – MTS working in the area

Actions: None noted.

PM – Cool and cloudy

OMU- All in use

Observations: No spikes or odours

Actions: None noted.

Wednesday 18th April 2018

AM – Hot and sunny partial clouds.

All OMU's = All in use

Observations: OM 5 spiked to 0.016ppm under 15 minute- No other issues

Actions: None noted

PM – Cool but cloudy

All OMU's - All in use

Observations: OM 5 spiked to 0.017 on two incidents however both under 15 minute durations.

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					
17/04/18	0	3150	1199	4349	8594	12943
13/04/18	157	2629	642	3428	5763	9191

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 within three days.

Digesters

Digesters 1-4 – Out of use (permanent)

Digester 5 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 6 - in use – seal level approx. 1ft below coping stones – seal

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

sludgy and stable – No signs of spillages

Digester 7 - in use – seal level approx. 1ft below coping stones – seal weak watery and gassy in some part – No signs of spillages at time of inspection

Digester 8 – in use – seal level approx. 1ft below coping stones – seal weak and watery but stable – No signs of spillages

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 10 – in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 11 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 12 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 13 - out of use

Digester 14 – Out of use .

Digester 15 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

Digester 16 - out of use

Digester 17 - in use – seal level approx. 1ft below coping stones – seal weak watery but stable – No signs of spillages

<p>Digester 18 - - in use – seal level approx. 1ft below coping stones – seal thick and stable – No signs of spillages</p> <p>Digester 19 -- in use – seal level approx. 1ft below coping stones – seal thick and stable – No signs of spillages</p> <p>Digester 20 -- in use – seal level approx. 1ft below coping stones – seal thick and stable – No signs of spillages in use</p> <p>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.</p>	
<p><u>GENERAL</u></p> <p><u>Sludge Screening House</u></p> <p>Shutter doors closed at time of inspection - no local odours.</p> <p><u>Imported Sludge</u></p> <p>Five imports of 35m³ daily for preceding seven days.</p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). Tank 71 drained down and out of service.</p> <p><u>Skips</u></p>	

4x empty 6yd grit skips (Grit house) – 3 of them were uncovered and empty

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational. 10/12 in use and 2/12 out of service being repaired/maintained

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 20% obstructed in one channel – requires jetting.

New Works (West Side)

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 60% obstructed – requires jetting.

Approximately 90% of tanks have again developed “thick fluffy” coverage across surface –due to sprinklers being out of services (power/pressure issues). Sprinklers not in operation at time of visit.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (18/04/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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	0.000 0.000 0.000	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 0.02	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 0.00 0.00	0.5	Yes



TW Site Inspection

Date of inspection: 12 th April 2018	
Attendees: Mr I Inman (L B Hounslow) & 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 completely full. Amajets 2 & 3 were in operation.</p> <p>Tank 1B was completely full. No Amajets were in operation.</p> <p>Tank 2A was completely full. No Amajets were in operation.</p> <p>Tank 2B was completely full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 3A was completely full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 3B was completely full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was completely full. Amajets 2 & 3 were in operation.</p> <p>Tank 6B was completely full. No Amajets were in operation.</p> <p>Tank 7A was completely full. No Amajets were in operation.</p> <p>Tank 7B was completely full. No Amajets were in operation.</p> <p>Tank 8A was completely full. No Amajets were in operation.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 8B was completely full. No Amajets were in operation.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was just over half full along its entire length and returning water from the storm tanks into the works.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:13 on 12th April 2018).

Monitor 1	0.004	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.006	ppm
Monitor 6	0.005	ppm
Monitor 7	0.005	ppm
Monitor 8	0.005	ppm
Monitor 9	0.004	ppm
Monitor 10	0.005	ppm
Monitor 11	0.005	ppm
Monitor 12	0.004	ppm
Monitor 13	0.004	ppm

Complaints

The Council received 3 complaints in the preceding week (one being an earlier complaint that was incorrectly sent to another Department within the Council).

On the 22nd March 2017 at 12:04 an Email complaint was received from a resident of Mogden Lane, Isleworth (ref: 972294). However, the

complaint was initially sent to the incorrect Department and was only forwarded to the Pollution Team for response on the 6th April.

The historic odour monitoring trends at the time of the complaint showed that there were no spikes or excessive readings around the time the complaint was originally made (22nd March 2018).

On the 8th April 2018 at approx 06:00 a telephone complaint was received from a resident of Worton Road, Isleworth (ref: 972350). However, the complaint was not forwarded to the duty officer by the ETO until approx 09:35 (ref: 972350).

The duty officer contacted the complainant at 09:55 but received no response and therefore left them a voice message.

The historic odour monitoring trends around the time of the complaint (between 05:30-09:30) showed no excessive readings.

On the 8th April 2018 at approx 08:24 a telephone complaint was received from a resident of Mogden Lane, Isleworth (ref: 972351). However, the complaint was not forwarded to the duty officer by the ETO until approx 11:40 (ref: 972350).

The duty officer contacted the complainant at 12:15 who advised the odour was still very bad.

The duty officer the area at approx 13:00 and undertook H2S measurements between 13:05-13:19, which showed the average H2S reading was 0.00ppb which is below the threshold and the subjective assessment was 0.

The historic odour monitoring trends around the time of the complaint (between 08:00-12:00) showed no excessive readings.

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

Thursday 5th April 2018

Observations AM OM9 one spike between 09:41-09:59, peaked at 0.022ppm.

Actions: none.

Observations PM OM9 spiked between 23:22-23:34, <15 mins duration, max 0.022ppm.

Actions: none.

Friday 6th April 2018

Observations AM OM5 14:32-14:48 0.015ppm, 12:03-12:18 0.020ppm.

Actions: Area investigated, no odour found.

Observations PM OM8 spiked to 0.017ppm from 21:27-22:27. OM5 spiked to 0.023ppm at 0.:48, less than 15 mins.

Actions: Area check around OM8, no obvious odours found.

Saturday 7th April 2018

Observations AM OM2 one spike 0.019ppm between 17:20-18:00. No odours identified.

Actions: none.

Observations PM No odour issues, nothing to report on trends.

Actions: none.

Sunday 8th April 2018

Observations AM No spikes on trends, no odour issues.

Actions: none.

Observations PM No odour issues, nothing of note on trends.

Actions: none.

Monday 9th April 2018

Observations AM No odour problems. No odour spikes on trends.

Actions: none.

Observations PM No odour issues. Nothing to report on trends.

Actions: none.

Tuesday 10th April 2018

Observations AM No odour spikes. No odour problems.

Actions: none.

Observations PM No spikes on trends. No odour issues on site.

Actions: none.

Wednesday 11th April 2018

Observations AM No odour spikes on trend. No odour problems.

Actions: none.

Observations PM No spikes on trends. No odour issues on site.

Actions: none.

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					
05/04/18	0	2568	61	2629	5611	8240
09/04/18	0	2944	61	3005	8927	11932
11/04/18	0	2206	764	2970	4805	7775

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 no 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.

As LBH note, this has not been required in the last week

Digester 5 had a very wet seal that was bubbling off gas.

Digester 6 was over spilling sludge at the time of the inspection and had a very high bell.

Digester 7 had a very wet seal that was bubbling off gas, the bell was also very high.

Digester 8, 9, 10, 11 & 12 all had a very wet seals that were all bubbling off gas.

Digesters 13 & 14 were both out of use.

Digester 15 had a very wet seal that was bubbling off gas, the bell was also very high and it had also been spitting out sludge on one side.

Digester 16 was out of use.

Digesters 17 & 18 both had a very wet seals that was bubbling off gas.

Digester 19 had a very wet seal that was bubbling off gas, the bell was also very high.

Digester 20 had a very wet seal that was bubbling off gas.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx <1/4 of its length on the nearside with thick sludge at the time of the inspection.

Tanker cleans out the channel on a weekly basis

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 tanks (71-78).

At the time of the inspection all tanks except 71 were in operation.

East Side Screen House

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

Thames Water advised screen 1 was out of service due to maintenance.

Skips

On the East side there was one 14yds skip which was empty.
No odour was present in the area.

On the West side there was one 40yds closed bulk carrier & one 20yds open bulk carrier that were both empty.
No odour was present in the area.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The Thames Water officer confirmed 11 of the 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 (Old)

No issues appeared evident.

New Works (West Side)

The whole of tanks have again developed a thick “fluffy” coverage across the entire surface that had a thick crust in some areas. This appears no better since the previous inspection and all internal dividing walls were covered. A significant quantity of surface sludge has surged over the West side external retaining wall onto surrounding grass. None of the sprinklers were in operation.

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged on the surface along its entire length with floating debris and thick sludge that appeared crusty in places.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 09/04/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.09(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	0.2(av)	0.6	Yes
# Jerome reading			



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 5 th April 2018	
Attendees: Mr Steven Maunders (London Borough of Hounslow) and Mr Manzoor Hussain(Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank full – No Amajets in operation.</p> <p>Tank 1B – Tank full – No Amajets in operation.</p> <p>Tank 2A – Tank full – No Amajets in operation.</p> <p>Tank 2B – Tank full – No Amajets in operation.</p> <p>Tank 3A – Tank full – No Amajets in operation.</p> <p>Tank 3B – Tank full – No Amajets in operation.</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 working.</p> <p>Tank 6A – Tank full – No Amajets in operation.</p> <p>Tank 6B – Tank full – No Amajets in operation.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 7A – Tank full – No Amajets in operation.

Tank 7B – Tank full – No Amajets in operation.

Tank 8A – Tank full – No Amajets in operation.

Tank 8B – Tank full – No Amajets in operation.

Feed Channel - The level of effluent in both feed channels was at maximum capacity - some local odour in area in vicinity of Tanks 4 & 5.

Tanker cleans out the channel on a weekly basis

Odour Monitors

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

Monitor 1	0.007	ppm	14:19
Monitor 2	0.008	ppm	14:19
Monitor 3	0.000	ppm	14:19
Monitor 4	0.006	ppm	14:19
Monitor 5	0.008	ppm	14:19
Monitor 6	0.008	ppm	14:19
Monitor 7	0.007	ppm	14:19
Monitor 8	0.008	ppm	14:19
Monitor 9	0.008	ppm	14:19
Monitor 10	0.006	ppm	14:19
Monitor 11	0.005	ppm	14:19
Monitor 12	0.006	ppm	14:19
Monitor 13	0.008	ppm	14:19
Wind Speed	1	mph	
Wind Direction	215°		

Complaints

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

On 1st April 2018 a resident of Mogden Lane phoned at 09:28 to advise of excessive odour: “The smell is consistently bad at the moment. Making feel sick.” – contact made with complainant by Duty Officer however visit unnecessary.

The odour log for AM shift on 1st April detailed: “No issues”

The historic odour monitoring trends for all OMU’s was unavailable at time of inspection due to SCADA failure.

On 1st April 2018 a resident of Northcote Avenue phoned at 10:34 to advise of excessive odour “The smell is worst (sic) than I've ever smelt, Made me actually sick” – contact attempted to be made with complainant by Duty Officer however unsuccessful despite repeated effort – no visit required.

The odour log for AM shift on 1st April detailed: “No issues”

The historic odour monitoring trends for all OMU’s was unavailable at time of inspection due to SCADA failure.

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 Log (Thames) - Photocopies of log entries taken:

Thursday 29th March 2018:

AM – Cold (AM) & Cool (PM) with cloud and rain.

OMU's 4 & 8 out of use - All other OMU's in use.

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

Actions: "Monitor 4 flat-lined – defective & Monitor 8 flat-lined – defective".

PM – No observations made.

No OMU data recorded.

Observations: "No issues."

Actions: None noted.

Friday 30th March 2018:

AM – Cold with heavy cloud and rain.

OMU's 4 & 8 out of use - All other OMU's in use.

Observations: "OM 1-5 = No spikes. OM 6-13 = No spikes".

Actions: None noted.

PM – Cool with heavy cloud and rain.

All OMU's in use.

Observations: "Monitor No.5 spiked at 00:16 but <15 mins duration (max 0.022ppm) & at 03:31 <15 mins duration (max 0.027ppm). Monitor No.7 spiked at 21:09 for just under an hour (max 0.018ppm). Storming to river all shift."

Actions: None noted.

Saturday 31st March 2018:

AM – No observations recorded.

No OMU data recorded.

Observations: None recorded

Actions: “Power House blackout – No SCADA working.

PM – Cold with Partial Sun and heavy cloud and rain.

All OMU’s in use.

Observations: “Monitor No.5 spiked at 00:22 but <15 mins duration max 0.022ppm and at 03:39 but <15 mins duration max 0.026ppm.”

Actions: None noted.

Sunday 1st April 2018:

AM – No observations made.

No OMU data recorded.

Observations: “No issues.”

Actions: None noted.

PM – Cool with heavy cloud and rain.

All OMU’s in use.

Observations: “Monitor No.8 spiked at 00:45 but <15 mins duration max 0.016ppm. Monitor No.12 spiked at 03:50 – 04:47 max 0.016ppm.”

Actions: None noted.

Monday 2nd April 2018:

AM – Cool/Warm with heavy cloud and rain.

No OMU data recorded.

Observations: “No odour issues. Nothing to report on Trends.”

Actions: None noted.

PM – Cool with heavy cloud and rain.

All OMU's in use.

Observations: “Monito No.2 spiked at 18:52-19:49 max 0.017ppm. Monitor No.9 spiked at 02:47-03:45 max 0.018ppm. No odours discovered. Heavy rain.”

Actions: “Combi Washers spilling due to blockages during high flows.”

Tuesday 3rd April 2018:

AM – Cool with heavy cloud and rain.

No OMU data recorded.

Observations: “No odour issues. Nothing to report on Trends.”

Actions: None noted.

PM – Cool with Sun, heavy cloud and rain.

All OMU's in use.

Observations: “No odour issues found or reported – No spikes on Trends.”

Actions: None noted.

Wednesday 7th February 2018:

AM – No observations recorded.

No OMU data recorded.

Observations: “O/M 5 spike to 0.024 @ 07:48 less than 15 mins.”

Actions: None noted.

PM – Cool with heavy cloud and rain.

OMU’s 1- 5 in use – No data for OMU’s 6-13.

Observations: “Monitor No.5 siked at 20:50 but <15 mins duration max 0.020ppm. Odour monitor No.8 spiked at 01:43 & 04:43 both times < 15 mins duration max 0.021ppm.”

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					
30/03/18	0	1986	764	2750	11624	14374
02/04/18	0	1593	722	2315	6343	8658
04/04/18	0	2121	267	2388	7298	9686

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 within three days.

As LBH note, this has not been required in the last week.

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. 4ft below coping stones – seal weak and bubbling.

Digester 6 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 7 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling.

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

Digester 9 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 10 – in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - in use – seal level approx. 18” 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. 18” below coping stones – seal weak and bubbling – ongoing spill from tank requiring clean-up.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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

Digester 17 - in use – seal level approx. 18” below coping stones – seal weak and bubbling.

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

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

Digester 20 - in use – seal level 3ft below coping stones - seal weak and bubbling.

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.

2x full, 3x partially filled & 3x 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

Sludge Screening House

All doors closed at time of inspection - no local odours.

Imported Sludge

No imports received currently due to breakdown in pump to lver works.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). Tank 71 drained down and out of service.

Skips

1x empty small grit slips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

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

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

Removed post inspection.
Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 50% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 – 25 blocked – jetting ongoing at time of inspection.

Whole of tanks have again developed “fluffy” coverage across surface – developing to a thick crust in some areas – worsened since previous inspection so as all internal dividing walls have been covered. Significant quantity of surface sludge has surged over external retaining wall onto surrounding grass and roadway – requires removal and cleaning of area.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (03/04/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.09 0.10 0.09	0.2	Yes
East OCU	0.003 0.003 0.004	0.05	Yes
West inlet OCU	0.04 0.04 0.03	0.05	Yes
Sludge reception inlet	No Data	Unknown	Unknown
Sludge reception outlet	0,00 0,00 0.10	0.8	Yes
Thickening plant inlet	No data		Unknown
Thickening plant outlet	0.30 0.30 0.40	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.10	0.6	Yes
New West inlet (OCU 11)	0.40 0.40 0.30	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 0.008	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 29 th March 2018	
Attendees: Mr A Devine (London Borough of Hounslow) and Mr M Hussain (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A to 8B – Tanks were all full and none were returning as no amajets were in use.</p> <p>Feed Channel - The level of effluent in both feed channels was high – approximately 80% full and flowing.</p> <p><u>Complaints</u></p> <p>The Council directly received one complaint by telephone in the preceding week.</p> <p>On the 25th March 2018 at 15:14 a telephone complaint was received by the call centre from a resident of Beaumont Place, Isleworth, located to the Southeast side of the works. The duty officer contacted the complainant at 13:59 who advised that the odour had been bad all morning and into the early afternoon. The duty officer advised the complainant that they would make a visit and take readings. The duty officer visited the area of 25 Beaumont Place and undertook H₂S readings for 10 minutes. The average H₂S readings were 0.000ppm which is below the threshold level of 0.015ppm. The historic odour</p>	<div style="border: 1px solid black; padding: 5px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining</p> </div>

monitoring trends were also inspected during the weekly inspection and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. The storm tanks for the am shift showed that effluent was present in tanks 4A and 4B, however these tanks are covered and odour controlled. The digester log from the am shift showed that no spills had occurred. It is therefore not possible on this occasion to identify the potential source of odour complained of by the resident.

The Council directly received one complaint by email in the preceding week.

On the 24th March 2018 at 13:48pm an email complaint was received from a resident of Nelson Road. The resident was complaining of a really bad smell over the last 10 days and has been noticeable in the front and back gardens. The resident is not located within the Borough and a letter was sent to them explaining that they would need to raise this with their Local Authority. During the weekly inspection the historic odour monitoring trends around the time of the complaint were inspected and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. Storm tanks 4B and 5A were in use at the time of the complaint, however it should be noted that storm tank 4B is covered and odour controlled. No spillages were recorded with digesters at the time of the complaint. It is not possible on this occasion it has not been possible to identify the potential source of odour complained of by the resident.

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	0.009	ppm	10:07
Monitor 2	0.009	ppm	10:07
Monitor 3	0.000	ppm	10:07
Monitor 4	0.000*	ppm	10:07
Monitor 5	0.008	ppm	10:07
Monitor 6	0.009	ppm	10:07
Monitor 7	0.009	ppm	10:07
Monitor 8	0.000*	ppm	10:07
Monitor 9	0.010	ppm	10:07
Monitor 10	0.009	ppm	10:07
Monitor 11	0.008	ppm	10:07
Monitor 12	0.007	ppm	10:07
Monitor 13	0.009	ppm	10:07

* Monitor stated 'empty value' possibly indicating a fault with monitors 4 and 8 at the time of the inspection

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

Thursday 22nd March 2018:

AM Observations: Odour monitor 5 spiked 0.021ppm between 05:02am to 06:00am. Odour monitor 5 spiked 0.023ppm between 14:17pm to 14:31pm (14mins). Odour monitor 8 spiked at 0.021ppm between 09:56am to 10:08am (12 mins). Odour monitor 8 spiked 0.020ppm between 12:26pm to 12:39pm (13 mins). No odour source discovered.

Actions: None noted.

PM Observations: No odour spikes. No odour problems.

Actions: None noted.

Friday 23rd March 2018:

AM Observations: Odour monitor 10 spiked at 0.018ppm between 09:55am to 10:55am. No source discovered.

Actions: None noted.

PM Observations: No odour issues on site. No spikes on trends.

Actions: None noted.

Saturday 24th March 2018:

AM Observations: Odour monitor 5 spiked at 0.016ppm between 16:32pm to 16:46pm. No other issues.

Actions: None noted.

PM Observations: Odour monitor 10 – one spike peaked at 0.018ppm between 21:25 to 21:42pm.

Actions: None noted.

Sunday 25th March 2018:

AM Observations: No odour spikes. No other issues.

Actions: No other issues

PM Observations: Odour monitor 10 peaked at 0.019ppm between 18:27 to 18:42. Odour monitor 4 peaked at 0.019ppm between 22:46pm to 23:19pm. Odour monitor 4 also peaked at 0.022ppm between 00:34am to 00:49am. Odour monitor 7 peaked at 0.021ppm between 21:41pm to 22:40pm. Odour detected from PAS area. Unable to identify exact source. OCU 12 running. Odour suppression units running in thickening area already.

Actions: None noted.

Monday 26th March 2018:

AM Observations: Odour monitor 8 spiked at 16:10pm but less than 15 minutes duration (max 0.032ppm).

Actions: None noted.

PM Observations: Odour monitor 7 peaked at 0.023 between 19:40pm and 20:38pm. Odour monitor 5 peaked at 0.018 between 19:15pm to 20:17pm and at 0.019ppm between 21:17pm to 21:32pm and at 0.026ppm between 22:47 to 23:16pm. Odour monitor 12 peaked at 0.018ppm between 01:14am and 02:14am.

Actions: None noted.

Tuesday 27th March 2018:

AM Observations: Trends servers failed and monitors 4 and 8 not recording.

Actions: Reported.

PM Observations: Odour monitor 5 peaked at 0.021ppm between 02:46am to 03:00am and at 0.022ppm between 00:01am to 00:14am. Odour monitor 12 peaked at 0.017ppm between 02:12am and 03:10am. Odour monitors 4 and 8 not showing on trends.

Actions: No source found.

Wednesday 28th March 2018:

AM Observations: Odour monitors 4 and 8 still not recording.

Actions: Reported.

PM Observations: Odour monitor 2 peaked at 0.016ppm between 17:02pm to 17:44pm. No other issues. Odour monitors 4 and 8 still dead.

Actions: None noted.	
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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					
23/03/18	0	2483	764	3247	10609	13856
26/03/18	0	2347	764	3111	13310	16421
28/03/18	0	2047	764	2811	12300	15111

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.

*Figures in (brackets) are the correct figures. Discrepancy on data submitted

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.

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 weak – No signs of spillages

Digester 6 - in use –seal weak – No signs of spillages

Digester 7 – in use –seal weak – No signs of spillages

Digester 8 – in use –seal weak – No signs of spillages

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 9 - in use –seal weak – No signs of spillages
Digester 10 – in use –seal weak – No signs of spillages
Digester 11 – in use –seal weak – No signs of spillages
Digester 12 – in use –seal weak – No signs of spillages
Digester 13 - out of use
Digester 14 - out of use
Digester 15 – in use – good seal – No signs of spillages
Digester 16 - out of use
Digester 17 - in use – good seal – No signs of spillages
Digester 18 - in use – good seal – No signs of spillages
Digester 19 – in use –seal weak – No signs of spillages
Digester 20 - in use –seal weak – No signs of spillages

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

Sludge Screening House

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

Imported Sludge

No imports 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). Tank 71 drained down and out of service to refurbish valve.

Skips

1 x 6 yd skips located at West side grit house. – empty, uncovered

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and all streams are fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

No issues found.

New Works (West Side)

Feed Channel for Aeration Lanes was noted to be obstructed during the inspection. Rag and sludge build up from aeration lane 25 to 23 and then from 22 to 21.

All of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. It was not possible to see the divide between the tank and there was evidence

Tanker cleans out the channel on a weekly basis

that the level had been very high. In some areas the coverage was not 'fluffy' but had appeared to form a crust.

Odour Control Unit (OCU) performance monitoring – (26/03/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.01 (av)	0.2	Yes
East OCU	0.05 (av)	0.05	Yes
West inlet OCU	0.01 (av)	0.05	Yes
Sludge reception outlet	0.6 (av)	0.8	Yes
Thickening plant outlet	0.02 (av)	0.6	Yes
Transfer PS outlet	0.020 (av)	0.6	Yes
New West outlet (OCU 11)	0.002 (av)	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 (av)	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 th March 2018	
Attendees: Mr L Phillips (London Borough of Hounslow) and Manzor (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and clean slight grit build up in tank hoppers 1 and 3 drained to lowest point however Hopper 2 required draining.</p> <p>Tank 1B – Tank empty and clean. Hoppers 1 and 2 drained down. Hopper 3 required draining.</p> <p>Tank 2A – Tank empty and clean - Hoppers 1, 2 & 3 all required overpumping.</p> <p>Tank 2B – Tank empty and clean with a slight amount of grit in the tank near the hoppers - All hoppers required overpumping.</p> <p>Tank 3A – Tank empty clean all hoppers required overpumping.</p> <p>Tank 3B – required overpumping.</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 working.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6A – Tank empty clean- Hoppers 1, & 2 drained to lowest point however hopper 3 requires overpumping.

Tank 6B – Tank empty clean- Hoppers 1, & 2 drained to lowest point hopper 3 requires overpumping.

Tank 7A – tank empty clean- Hoppers all drained to lowest point.

Tank 7B – Tank empty and clean – All hoppers full.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8B – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Feed Channel - The level of effluent in both feed channels was high – approximately 70% full and flowing.

Complaints

The Council directly received one complaint by telephone in the preceding week.

On the 22th March 2018 at 11:59 a telephone complaint was received by the call centre from a resident of Mogden Lane , Isleworth, located to the east side of the works. The call was passed to the duty officer at approximately 12:30. The duty officer contacted the complainant at 13:12 the complaint stated that the odour had been bad all morning. The duty officer asked if the odour was still present and affecting them at their property. The complainant advised that they had left their property and was unable to advise if the odour was still present. . As the duty officer was in the area due to conduct the weekly inspection the officer undertook H₂S readings for 10 minutes from 13:23. The average H₂S readings were 0.000ppm which is below the threshold level of 0.015ppm. The historic odour monitoring trends were inspected and no levels above the threshold were noted on odour monitors 1 to

13 at the time of the complaint. Therefore it is not possible on this occasion to identify the potential source of odour complained of by the resident.

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	0.009	ppm	10:07
Monitor 2	0.009	ppm	10:07
Monitor 3	0.000	ppm	10:07
Monitor 4	0.007	ppm	10:07
Monitor 5	0.006	ppm	10:07
Monitor 6	0.011	ppm	10:07
Monitor 7	0.009	ppm	10:07
Monitor 8	0.010	ppm	10:07
Monitor 9	0.009	ppm	10:07
Monitor 10	0.008	ppm	10:07
Monitor 11	0.007	ppm	10:07
Monitor 12	0.009	ppm	10:07
Monitor 13	0.009	ppm	10:07

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

Thursday 15th March 2018:

AM: No odour issues.

PM: No issues.

Actions: None noted.

Friday 16th March 2018:

AM: Odour monitor 8 spiked for less than 15 minutes. No action taken.

PM: Odour monitor 5 - 0.022 at 20:06- 21:03. Odour monitor 5 – 0.030 at 21:36 – 21:48. Odour monitor 6 – 13 no spikes.

Actions: None noted.

Saturday 17th March 2018:

AM: Odour monitor 9 showing high at 11:16 – 11:43 (0.021 ppm). Area checked around power house and no odours found spiked again at 14:43 for less than 15 minutes no other odour problems.

Actions: Odour suppressant unit running by river gates.

PM: Odour monitor 1- 5 no spikes. Odour monitor 6 0.016 at 17:45 – 18:43 – No SWT. Odour monitor 9 0.017 at 00:10 – 00:23 – down to digester 7 blowing its seal.

Actions: None noted.

Sunday 18th March 2018:

AM: No odour spikes. No odour issues.

Actions: None noted

PM: Odour monitors 1-5 no spikes. Odour monitor 6-13 mon 13 0.015

at 01:41 – 02:38. Mon 9 – 0.0018 at 04:31 – 04:43.

Actions: None noted.

Monday 19th March 2018:

AM: Odour monitor 9 – spikes peaked at 0.027ppm. Monitor 4 – three spikes peaked @0.028ppm. No odour identified on site OCU 12 carbon replacement work ongoing.

PM: Odour monitor 1-5 no spikes. Odour monitor 6-13. Odour monitor 9 0.021- at 21:03 – 21:15. Odour monitor 10 – 0.021 at 00:45- 00:58. Odour monitor 10 0.016 at 01:15 – 02:13. Odour monitor 10 – 0.017 at 02:45 – 02:58.

Actions: None noted.

Tuesday 20th March 2018:

AM: Monitor 8 – 0.016ppm spike 07.27 - 08.27. Monitor 10 0.019 ppm spike 08:26- 08:41. Monitor 5 multiple spikes 14:02 – 16:17 peaked 0.051ppm.

Actions: No action taken OCU12 carbon replacement ongoing. Thickening area quite odours lots of imports cleaning ran sludge holding tank.

PM: Monitors 9,10,12 spiking all shift monitor 12 from 22:44 – 23:42 at 0.017ppm. All areas checked and no adverse odours found.

Actions: None noted.

Wednesday 21st March 2018:

AM: Odour monitor 8- one spike 0.021ppm 09:56 – 10:11. Monitor 5 one spike 0.020 ppm 06:31 – 07:02. Thickening area odour detected OCU12 reinstated.

Actions: None noted

PM: Odour monitor 1 at 22:10 till 23:10 (0.022ppm) Odour from PAS blowing across site.

Actions: PAS and OCU12 checked and no problems found.

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					
16/03/18	304	2672	1284	4260	8256	12516
19/03/18	435	1425	909	2769	8923	11692
21/03/18	0	2296	1199	3495	11625	15120

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.

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 – weak seal- No signs of spillages.

Digester 6 - In use – weak seal- No signs of spillages.

Digester 7 – In use – weak seal- No signs of spillages.

Digester 8 – In use – weak seal- No signs of spillages.

Digester 9 - In use – weak seal- No signs of spillages.

Digester 10 – In use – weak seal- No signs of spillages.

Digester 11 – In use – weak seal- No signs of spillages.

Digester 12 – In use – weak seal- No signs of spillages

As LBH note, this has not been required in the last week

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 13 - out of use

Digester 14 - In use – good seal – No signs of spillages

Digester 15 – In use – weak seal- No signs of spillages

Digester 16 - out of use

Digester 17 - in use – good seal, pellets used – No signs of spillages

Digester 18 - In use – weak seal- No signs of spillages.

Digester 19 – In use – weak seal- No signs of spillages.

Digester 20 - In use – weak seal- No signs of spillages.

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

Sludge Screening House

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

1 Imported Sludge

Ten imports of 35m³ 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). Tank 71 drained down and out of service to refurbish valve.

Skips

3 x 6 yd skips located at East side grit house. – empty, uncovered
1x small open skip – half full of general waste located Service Road by

Pasteurisation plant .

1x small open skip empty covered.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and 10 streams are fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

No issues found.

New Works (West Side)

Feed Channel for Aeration Lanes were being tankered off during the inspection. However the feed channel was noted to be obstructed during the inspection.

Approximately 90% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. Sprinkler head performance has been improved (cleaned/pressure increase).

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (20/03/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.000 (av)	0.2	Yes
East OCU	0.03 (av)	0.05	Yes
West inlet OCU	0.00 (av)	0.05	Yes
Sludge reception outlet	0,002 (av)	0.8	Yes
Thickening plant outlet	0.03 (av)	0.6	Yes
Transfer PS outlet	0.00 (av)	0.6	Yes
New West outlet (OCU 11)	0.011(av)	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 (av)	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 15 th March 2018	
Attendees: Mr A Devine (London Borough of Hounslow) and Mr A Haines (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and flushed but sludge noted in the tank near to the hoppers -- Hoppers 1, 2 & 3 drained down to 50% from bottom level.</p> <p>Tank 1B – Tank empty and flushed with a small amount of sludge in the tank near the hoppers - Hoppers 1 and 2 drained down. Hopper 3 required overpumping.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down.</p> <p>Tank 2B – Tank empty and flushed with a small amount of sludge in the tank near the hoppers - Hoppers 1 and 2 drained down. Hopper 3 required overpumping.</p> <p>Tank 3A – Tank approximately 75% full. Amajets 1, 2 and 3 all working.</p> <p>Tank 3B – Tank approximately 75% full. Amajets 1, 2 and 3 all working.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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 approximately full.

Tank 6B – Tank approximately full.

Tank 7A – Tank has some residual effluent water at the base and all the hoppers were full, however these are the shallow hoppers.

Tank 7B – Tank empty and flushed – All shallow hoppers full.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8B – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Feed Channel - The level of effluent in both feed channels was high – approximately 70% full and flowing.

Complaints

The Council directly received one complaint by telephone in the preceding week.

On the 16th March 2018 at 12:51 a telephone complaint was received by the call centre from a resident of Steele Road, Isleworth, located to the east side of the works. The call was passed to the duty officer at approximately 13:05. The duty officer contacted the complainant at 13:10 who advised the odour had been bad all week and was still bad today. The duty officer asked if the odour was still present and affecting them at their property. The complainant confirmed that it was still present. The duty officer therefore visited the area at approximately 13:37 and undertook H₂S readings for 10 minutes. The average H₂S readings were 0.000ppm which is below the threshold level of

Tanker cleans out the channel on a weekly basis

0.015ppm. The historic odour monitoring trends were inspected and no levels above the threshold were noted on odour monitors 1 to 13 at the time of the complaint. Therefore it is not possible on this occasion to identify the potential source of odour complained of by the resident.

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

On the 14th March 2018 at 09:22 an email complaint was received. The resident did not provide their address. An email was sent to the complainant requesting additional contact information and a telephone call was made to complainant on the 20th March but there was no response and a message was left requesting a call back. The resident stated in their email that the odour from Mogden had been quite bad lately but it is horrendous and unbearable today and could we do something about the smell. The historic odour monitoring trends around the time of the complaint showed the following. Odour monitor OM's 1-5 showed no spikes or excessive readings around the time of the complaint. With regards to odour monitors 6 to 13, odour monitor 12 showed a slightly elevated concentration of H₂S at 0.016ppm. Storm tanks 3A to 5B were in use at the time of the complaint, however it should be noted that storm tanks 4A and 4B are covered and odour controlled. No spillages were recorded with digesters at the time of the complaint. As the location of the complainant could not be ascertained it is not possible on this occasion to identify the potential source of odour complained of by the resident.

On the 14th March 2018 at 14:32pm an email complaint was received from a resident of James Street located to the North West of the site. The initial email complaint did not provide a location for the complainant so an email was sent to the complainant requesting additional contact information, which were provided. The resident stated in their email that the smell is really strong today and the house really smells as they tried to open the windows to get fresh air into the property and that on their way to work this morning they smell it in the car driving through Hounslow. During the call to obtain additional information the Local Authority officer did explain that there was a local sewer problem in the Hounslow area. The historic odour monitoring trends around the time of the complaint showed the following. Odour monitor OM's 1-13 showed no spikes or excessive readings around the time of the complaint. Storm tanks 3A to 5B were in use at the time of

the complaint, however it should be noted that storm tanks 4A and 4B are covered and odour controlled. No spillages were recorded with digesters at the time of the complaint. It is not possible on this occasion to identify the potential source of odour complained of by the resident.

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	0.008	ppm	10:07
Monitor 2	0.007	ppm	10:07
Monitor 3	0.000	ppm	10:07
Monitor 4	0.006	ppm	10:07
Monitor 5	0.006	ppm	10:07
Monitor 6	0.010	ppm	10:07
Monitor 7	0.009	ppm	10:07
Monitor 8	0.008	ppm	10:07
Monitor 9	0.008	ppm	10:07
Monitor 10	0.008	ppm	10:07
Monitor 11	0.007	ppm	10:07
Monitor 12	0.009	ppm	10:07
Monitor 13	0.008	ppm	10:07

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

Thursday 08th March 2018:

AM Observations: No odour issue. Nothing to report on trends.

Actions: No action

PM Observations: Odour monitor spiked at 20:56pm but less than 15 minutes duration (max0.015ppm). Odour monitor 6 spiked at 19:20pm but less than 15 minutes duration (max0.016ppm)

Actions: None noted.

Friday 09th March 2018:

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

Actions: None noted.

PM Observations: No odour spikes. No other issues.

Actions: None noted.

Saturday 10th March 2018:

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

Actions: None noted.

PM Observations: Odour monitor 1 0.016ppm at 20:22pm. Spiked then dropped down. No other issues.

Actions: None noted.

Sunday 11th March 2018:

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

Actions: No other issues

PM Observations: Odour monitor 12 fluctuating between 0.015ppm

and 0.016ppm between 02:59am and 03:57am. No other issues.

Actions: No source found.

Monday 12th March 2018:

AM Observations: Odour monitor 1 to 5 no spikes. Odour monitor 6 to 13 no spikes.

Actions: Scada Rebooted – Trend info lost from 6am – noon.

PM Observations: No odour spikes. No other issues. Sludge thickening OCU 20.55ppb odour monitor 8 alarming (0.005ppm)

Actions: None noted.

Tuesday 13th March 2018:

AM Observations: Odour monitor 1 to 5 no spikes. Monitor 8 – 0.017ppm between 08:00am to 08:12am.

Actions: None noted.

PM Observations: Odour monitor 7 spikes to 0.021ppm at 20:39pm to 21:00pm.

Actions: Area check round monitor and eight storm tanks. Perimeter Patrol done. No obvious odours found. Storm tanks half full.

Wednesday 14th March 2018:

AM Observations: Odour monitor 5 0.018ppm between 10:21am to 10:34am.

Actions: None noted

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

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					
09/03/18	3816	2255	1199	7270	10949	18219
12/03/18	3438	2568	1199	7205	9267	16472
14/03/18	3816	2816	1574	8206	10618	18824

The sludge stock levels for the West side circular primary settlement tank 1 were **not compliant** with the OMP trigger level (500m³) on the 09/03/18, 12/03/18 and 14/03/18 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 within three days and which has been complied with in this instance

Explanation to the high levels of sludge in the PSTs: TW advised that the sludge readings are not true readings for sludge in the West Side PSTs 1. Thames Water advised that there is clean water being pumped to the head of the circular PSTs (West Side) and into circular PST 9. The force of this water entering PST 9 is causing the thin layer of sludge within the tank to be blown up and mixed throughout the tank (mixing blanket). When the tanks are dipped for sludge they are encountering it at a much higher level due to this mixing. Thames Water has to record when they encounter sludge as part of their procedures and this is why they believe they consider they have the false higher readings. Another reason why they believe these are false positives is due to the flow out of the PST. If the levels of sludge present in the tank are correct they would expect to see flows at 40l/s however they have flows of 60l/s with current levels. Thames Water advised they would have flow like this with lower levels of sludge in the tank and therefore they do not believe it is an issue and would also not

LBH notified.

be an odour issues.

Thames Water have confirmed that the high readings shown have now been addressed by diverting the return flow to the covered rectangular PSTs. Thames Water have also confirmed that the sludge dip readings for the West PSTs 1 have returned to below 500m³. Thames Water took 4 portable Jerome monitor readings while the sludge dip readings were above 500m³ and the results were all zero.

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 – good seal – No signs of spillages

Digester 6 - in use – good seal – No signs of spillages

Digester 7 – in use – seal weak and bubbling – No signs of spillages

Digester 8 – in use – seal weak and bubbling – No signs of spillages

Digester 9 - in use – good seal – No signs of spillages– No signs of spillages

Digester 10 – in use – seal weak and bubbling – No signs of spillages

Digester 11 – in use – seal weak and bubbling – No signs of spillages

Digester 12 – in use – seal weak and bubbling – No signs of spillages

Digester 13 - out of use

Digester 14 - in use – good seal – No signs of spillages

Digester 15 – in use – seal weak and bubbling – No signs of spillages

Digester 16 - out of use

Digester 17 - in use – good seal, pellets used – No signs of spillages

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 18 - in use – good seal, pellets used – No signs of spillages

Digester 19 – in use – seal weak and bubbling – No signs of spillages

Digester 20 - in use – seal weak and bubbling – No signs of spillages

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

Sludge Screening House

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

1 Imported Sludge

Ten imports of 35m³ 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). Tank 71 drained down and out of service to refurbish valve.

Skips

1x empty large loader skip located at East side grit house. – empty, uncovered

3 x 6 yd skips located at East side grit house. – empty, uncovered

1x small open skip – half full of general waste located Service Road by Pasteurisation plant .

1x small open skip approximately 50% full of general waste.

East Side Screen House

All doors closed.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Pasteurisation Plant

The pasteurisation plant is in service and 10 streams are fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

No issues found.

New Works (West Side)

Feed Channel for Aeration Lanes were being tankered off during the inspection. However the feed channel was noted to be obstructed during the inspection.

Approximately 90% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. Sprinkler head performance has been improved (cleaned/pressure increase).

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (12/03/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.008 (av)	0.2	Yes
East OCU	0.00 (av)	0.05	Yes
West inlet OCU	0.00 (av)	0.05	Yes
Sludge reception outlet	0,00 (av)	0.8	Yes
Thickening plant outlet	0.00 (av)	0.6	Yes
Transfer PS outlet	0.020 (av)	0.6	Yes
New West outlet (OCU 11)	0.003 (av)	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 (av)	0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 8 th March 2018	
Attendees: Mr Phillips (London Borough of Hounslow) and Mr Dimitrios Kalmantis (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and clean – Hoppers 1, & 3 need draining. Hopper 2 drained down to lowest point.</p> <p>Tank 1B – Tank empty and clean - Hoppers 2 & 3 require draining. Hopper 1 drained to lowest point.</p> <p>Tank 2A – Tank empty and clean – Hoppers 1, 2 & 3 all require draining as all full.</p> <p>Tank 2B – Tank empty and clean – All hoppers drained down to lowest point.</p> <p>Tank 3A – Tank empty slight grit build up in tank – All hoppers drained down to lowest point.</p> <p>Tank 3B – Tank empty and clean – All hoppers require draining.</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 working.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 6A – Tank empty and clean – All hoppers require draining.

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

Tank 7A – Tank empty clean. However all hoppers require draining.

Tank 7B – Tank empty and cleaned all hoppers require action. Thames Water advised that this is down to an issue with faulty subterranean non-return valve allowing back filling of hoppers requires repair or replacement.

Tank 8A – Tank empty and clean – All hoppers require draining.

Tank 8B - Tank empty and clean – All hoppers require draining.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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	0.010	ppm	10:27
Monitor 2	0.009	ppm	10:27
Monitor 3	0.010	ppm	10:27
Monitor 4	0.009	ppm	10:27
Monitor 5	0.004	ppm	10:27
Monitor 6	0.011	ppm	10:27
Monitor 7	0.010	ppm	10:27
Monitor 8	0.009	ppm	10:27
Monitor 9	0.009	ppm	10:27
Monitor 10	0.008	ppm	10:27
Monitor 11	0.004	ppm	10:27
Monitor 12	0.006	ppm	10:27
Monitor 13	0.009	ppm	10:27
Wind Speed	-	mph	10:27
Wind Direction	-	mph	10:27

Odour Log (Thames) - Photocopies of log entries taken:
Thursday 8th March 2018:

Thursday 1st March 2018:

AM No odour issues.

PM Monitor No 4 multiple spikes between 18:30-1945 0.027ppm. Monitor No7 spiked between 1853- 19:53 0.022ppm. Monitor No12 spiked 22:43- 2343 0.022ppm. Monitor No4 spiked 02:30 – 0330 0.017ppm. Standby generators running for NGR stor- exhaust gases being blown in direction of monitor No4.

Friday 2nd March 2018:

AM No odour issues.

PM No odour issues nothing to report on trends.

Saturday 3rd March 2018:

AM No odour issues no spikes on trends.

PM OM5 spiked to 0.030 at 20:12 less than 15 minutes.

Sunday 4th March 2018:

AM No odour issues no spikes on trends.

PM Odour monitor 6 1:45 am – 02:45am (0.016ppm) PAS back running area checked and no odours found.

Monday 5th March 2018:

AM No odour spikes lots of spillages in PAS area spillage at imported sludge McKeely temp screen.

PM Monitor No6 from 03:00- 03:45 (0.019)ppm area checked and no odours found.

Tuesday 6th March 2018:

AM 0.015 OM5 05:12- 06:10 no other issues.

PM No odour issues icons trends very slow.

Wednesday 28th March 2018:

AM OM1 0.019 13:36- 13:46, 0.016 10:36- 10:39. Om6 0.018 16:31- 17:30 no other issues. Line setting PAS area no other source found.

PM Monitor No 1 spiking at 05:57 (08/03/18) but 15 mins duration (max 0.018).

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					
02/03/18	1740	1879	928	4547	8254	12801
05/03/18	1740	2254	1448	5442	7921	13363
07/03/18	1070	1860	2343	5273	10275	15548

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.

Digesters

Digesters 1-4 – Out of use permanent.

Digester 5 - Was in use had a weak sloppy seal. No evidence of spillage

Digester 6 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 7 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 8 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 9 Was in use had a weak sloppy seal. No evidence of spillage.

LBH notified.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 10 – Was in use had a weak sloppy seal. No evidence of spillage.

Digester 11 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 12 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 13 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 14 – Out of use.

Digester 15 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 16 - Out of use

Digester 17 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 18 - Was in use had a good seal pellets in use. No evidence of spillage.

Digester 19 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 20 - Was in use had a weak sloppy seal. No evidence of spillage.

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

Sludge Screening House

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

Imported Sludge

Twelve imports of 35m³ 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). All tanks in service no issues to report.

Skips

1x empty large loader skip located at Grit house. – empty
1x small open skip covered tarpaulin no odour issues. Service Road by Pasteurisation plant .

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting.

New Works (West Side)

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 30% obstructed – Tanker onsite at time of visit clearing up blockage.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris.

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 08/03/2018

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.007(av)	0.2	Yes
East OCU	0.004(av)	0.05	Yes
West inlet	0.00(av)	0.05	Yes
Sludge reception outlet	0.00(av)	0.8	Yes
Thickening plant outlet	0.06(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.02(av)	0.5	Yes
Transfer PS outlet	0.02(av)	0.6	Yes
New West OCU 11 outlet	0.007(av)	0.6	Yes

Jerome reading

Tanker cleans out the channel on a weekly basis



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 5 th March 2018	
Attendees: Mr Phillips (London Borough of Hounslow) and Mr Dimitrios Kalmantis (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p>Tank 1B – Tank empty and clean - Hoppers 1 and 2 drained to lowest point however hopper 3 required draining.</p> <p>Tank 2A – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p>Tank 2B – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p>Tank 3A – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</p> <p>Tank 3B – Tank empty and clean – Hoppers 1, 2 & 3 all drained down to lowest point.</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>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

working.

Tank 6A – Tank empty and clean - Hoppers 1 & 3 require draining hopper 2 drained to its lowest point.

Tank 6B – Tank empty and clean - Hoppers 1 & 2 drained down to lowest point hopper 3 requires draining.

Tank 7A – Tank empty and flushed -Hoppers 1, 2 & 3 drained down to bottom level

Tank 7B – Tank empty and cleaned all hoppers require action. Thames Water advised that this is down to an issue with faulty subterranean non-return valve allowing back filling of hoppers requires repair or replacement.

Tank 8A – Tank empty and clean – All hoppers drained down to lowest point.

Tank 8B – Tank empty and clean – All hoppers drained down to lowest point.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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	0.009	ppm	10:27
Monitor 2	0.000	ppm	10:27
Monitor 3	0.000	ppm	10:27
Monitor 4	0.008	ppm	10:27
Monitor 5	0.009	ppm	10:27
Monitor 6	0.010	ppm	10:27
Monitor 7	0.009	ppm	10:27
Monitor 8	0.009	ppm	10:27
Monitor 9	0.009	ppm	10:27
Monitor 10	0.009	ppm	10:27
Monitor 11	0.000	ppm	10:27
Monitor 12	0.009	ppm	10:27
Monitor 13	0.009	ppm	10:27
Wind Speed	-	mph	10:27
Wind Direction	-	mph	10:27

**Odour Log (Thames) - Photocopies of log entries taken:
Monday 5th March 2018:****Thursday 22nd February 2018:**

AM Monitor 6- One spike 16:30 -17:30 Peaked at 0.017ppm

PM Odour monitor 5 no spikes- Monitors 6 & 13 no spikes.

Friday 23rd February 2018:

AM Monitor No 5 spiked at 17:44 but 15 mins duration (Max 0.022 ppm) No other issues found or reported.

PM No odour issues nothing to report on trends.

Saturday 24th February 2018:

AM No odour issues on site.

PM Odour monitor 7 spiked at 20:08 till 21:08 0.02ppm. Area check around storm tanks no obvious odours found.

Sunday 25th February 2018:

AM No odour issues no spikes on trends.

PM Odour monitor 12 at 00:35 till 01:42 peaked to 0.019. Odour monitor 9 spiked to 0.023ppm at 01:38 less than 15 minutes. Digester area and e batt finals check no notable smells found.

Monday 26th February 2018:

AM Odour monitor 12 showing odour 0.019 digesters checked and all ok.

PM Odour monitor 13 at 22:36 peaked to 0.019ppm for 1 hour. Odour Monitor 12 at 00:29 peaked to 0.018ppm for 1 hour. Area checked around permitted no obvious odours found.

Tuesday 27th February 2018:

AM Odour Monitor No9 spiked under 15 minutes (0.01) Odour monitor No4 14:30 – 15:30 (0.02) area checked and no odours found MTS cleaning FST channels.

PM Monitor 7 spike at 18:08 – 19:08 0.025ppm odour investigation carried out. Monitor 10 multiple spikes throughout shift. Peaked at digester bell heights. Waste gas burner failed due to frozen condensate drain burner operational after clearing drain.

Wednesday 28th February 2018:

AM Odour monitor 6 showing odour from 15:30 – 16:30. Area checked all ok monitors 9 and 4 showing odours from 16:30. Area checked and no odours found.

PM Monitor 4 spiked 4 times between 18:00 – 20:45. No apparent issues on site standby generators running till 19:30. Possibly exhaust fumes effecting monitor.

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					
23/02/18	0	2442	1261	3703	6582	10285
26/02/18	0	2629	2010	4639	6768	11407
28/02/18	1740	2441	1116	5297	6243	11540

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.

Digesters

Digesters 1-4 – Out of use permanent.

Digester 5 - Was in use had a weak sloppy seal. No evidence of spillage

Digester 6 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 7 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 8 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 9 Was in use had a weak sloppy seal. No evidence of spillage.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 10 – Was in use had a weak sloppy seal. No evidence of spillage.

Digester 11 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 12 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 13 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 14 – Out of use.

Digester 15 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 16 - Out of use

Digester 17 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 18 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 19 - Was in use had a weak sloppy seal. No evidence of spillage.

Digester 20 - Was in use had a weak sloppy seal. No evidence of spillage.

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

Sludge Screening House

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

Imported Sludge

Twelve imports of 35m³ 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). All tanks in service no issues to report.

Skips

1x empty large loader skip located at Grit house. – empty
1x small open skip covered tarpaulin no odour issues. Service Road by Pasteurisation plant .

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting.

Tanker cleans out the channel on a weekly basis

New Works (West Side)

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 30% obstructed – Tanker onsite at time of visit clearing up blockage.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris.

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 23/02/2018

Tanker cleans out the channel on a weekly basis

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				



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 nd February 2018	
Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr Dimitrios Kalmantis (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks</u></p> <p>Tank 1A – Tank empty and flushed -- Hoppers 1, 2 & 3 drained down to 25% from bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tanks 4A, 4B, 5A & 5B which are covered and odour controlled were</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

all empty - unable to gauge condition as lighting system still not working.

Tank 6A – Tank empty and flushed - approximately 5% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – Tank empty and flushed - approximately 5% of tank covered by grit – requires a sweep - Hoppers 1, 2 & 3 drained down to bottom level

Tank 7A – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level

Tank 7B – Tank empty and flushed – approximately 5% of tank covered by grit – requires further flushing/sweeping up of grit - Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8A – Tank recently returned – approximately 5% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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	0.008	ppm	13:43
Monitor 2	0.009	ppm	13:43
Monitor 3	0.000	ppm	13:43
Monitor 4	0.009	ppm	13:43
Monitor 5	0.006	ppm	13:43
Monitor 6	0.009	ppm	13:43
Monitor 7	0.008	ppm	13:43
Monitor 8	0.009	ppm	13:43
Monitor 9	0.009	ppm	13:43
Monitor 10	0.010	ppm	13:43
Monitor 11	0.000	ppm	13:43
Monitor 12	0.008	ppm	13:43
Monitor 13	0.009	ppm	13:43
Wind Speed	-	mph	13:43
Wind Direction	-	mph	13:43

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

Thursday 15th February 2018:

AM – Cold and Cloudy

Observations: OM 2 spiked at 16:42 (0.018ppm) Contractors cleaning No1 flume.

Actions: No action

PM – Cold and Cloudy .

All OMU's in use.

Observations: OM 5 spiked at 20:56- 21:55 (0.025ppm)

Actions: None noted.

Friday 16th February 2018:

AM – Cool with partial cloud

All OMU's in use.

Observations: No odour problems.

Actions: None noted.

PM – Cool and Cloudy .

Observations: No odour problems

Actions: None noted.

Saturday 17th February 2018:

AM – Freezing with partial clouds.

All OMU's in use.

Observations:

No odour spikes

Actions: None noted.

PM – Cold with Partial cloud and rain.

All OMU's in use.

Observations: OM3 flatlining

Actions: None noted.

Sunday 18th February 2018:

AM – Freezing with no clouds

All OMU's in use.

Observations: OM 2 and 3 flatlining only on new Scada

Actions: No other issues

PM – Cool but cloudy.

All OMU's in use.

Observations: OM3 flatlining

Actions: None noted.

Monday 19th February 2018:

AM – Cool temperature

OMU – No observation

Observations: OM 5 spiked to 0.021ppm at 07:26 (under 15 minute duration)

Actions: None noted.

PM – Cool with cloud and rain.

11/13 OMU's in use.

Observations: OM 3 and 8 flatlining – No other issues found

Actions: None noted.

Tuesday 20th February 2018:

AM – Cold.

OMU- No observations.

Observations: No observations

Actions: None noted.

PM – Cold

OMU- No observations

Observations: OM 1-13 No spikes

Actions: None noted.

Wednesday 21st February 2018:

AM – Cool with partial cloud.

All OMU's in use.= No observations

Observations: No odour issues – nothing to report on trends

Actions: None noted

PM – Cold

All OMU's in use- No observations

Observations: No odour spikes

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					
16/02/18	0	1443	595	2038	4897	6935
*19/02/18	0	2829 (2629)	1750 (1780)	4579 (4609)	9599 (9999)	14178 (14608)
21/02/18	0	2253	1593	3846	10616	14462

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.

*Figures in (brackets) are the correct figures. Discrepancy on data submitted

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.

As LBH note, this has not been required in the last week.

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 – No signs of spillages

Digester 6 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling – No evidence of spillage.

Digester 7 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring clean-up – Bell height high – requires draw down of biogas.

Digester 8 – in use – seal level approx. 1ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring clean-up – Bell height high – requires draw down of biogas.

Digester 9 - in use – seal level approx. 2ft below coping stones – good seal (pellets in use).

Digester 10 – in use – seal level approx. 2ft below coping stones – seal good

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

Digester 12 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 13 - out of use

Digester 14 - in use – seal level approx. 1ft below coping stones –

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

good seal (Pellets in use).

Digester 15 - in use – seal level approx. 1ft below coping stones – good seal

Digester 16 - out of use

Digester 17 - in use – seal level approx. 1ft below coping stones – seal slightly weak and bubbling.

Digester 18 - in use – seal level approx. 1ft below coping stones – seal weak and slightly watery .

Digester 19 -- in use – seal level approx. 1ft below coping stones – seal weak and watery.

Digester 20 - in use – seal level 1ft below coping stones - seal weak and watering.

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

Sludge Screening House

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

Imported Sludge

Twelve imports of 35m³ 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). Tank 71 drained down and out of service.

Skips

1x empty large loader skip located at Grit house. – empty
1x small open skip – half full of general waste located Service Road by Pasteurisation plant .

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 30% obstructed – requires jetting.

Approximately 90% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. Sprinkler head performance has been improved (cleaned/pressure increase).

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Odour Control Unit (OCU) performance monitoring – (22/02/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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
Thickening plant outlet	0.005 0.005 0.005	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)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurization Plant)	0.00 0.00 0.00	0.5	Yes



TW Site Inspection

Date of inspection: 15 th February 2018	
Attendees: Mr I Inman (L B Hounslow) & 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 just over half full. Amajet 1 was not working but Amajets 2 & 3 were in operation.</p> <p>Tank 1B was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 2A was just over half full. None of the Amajets were in operation.</p> <p>Tank 2B was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 3A was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 3B was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 6B was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 7A was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 7B was just over half full. Amajets 1, 2 & 3 were all in operation.</p> <p>Tank 8A was just over half full. Amajets 1, 2 & 3 were all in operation.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 8B was just over half full. Amajets 1, 2 & 3 were all in operation.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was just over half full along its entire length and returning water from the storm tanks into the works.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:33).

Monitor 1	0.007	ppm
Monitor 2	0.000	ppm
Monitor 3	0.000	ppm
Monitor 4	0.008	ppm
Monitor 5	0.005	ppm
Monitor 6	0.009	ppm
Monitor 7	0.010	ppm
Monitor 8	0.009	ppm
Monitor 9	0.008	ppm
Monitor 10	0.008	ppm
Monitor 11	0.000	ppm
Monitor 12	0.007	ppm
Monitor 13	0.009	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 8th February 2018

AM OM5 0.017ppm 08:25-08:40. OM6 0.016ppm 17:14-17:25 (less than 15 minutes). No other issues

PM No odour spikes.

Friday 9th February 2018

AM OM5 0.020ppm 13:56-14:10 (less than 15 minutes). No other issues.

PM No odour issues. No spikes on trends.

Saturday 10th February 2018

AM OM5 0.023ppm 9:56-10:10, then 0.032ppm 7:56-8:10 (less than 15 minutes). No source found, suspect from PAS area.

PM Monitor 5 – 0.066ppm spike 22:11-22:26 15 minute spike unable to locate source.

Sunday 11th February 2018

AM OM5 0.018ppm 16:25-16:40 (less than 15 minutes). No other problems. No source found.

PM Monitor 12 – one spike 0.018ppm 23:57-00:57.

Monday 12th February 2018

AM Monitor No:1 spiked at 13:52 but <15 mins duration (max 0.016ppm).

Monitor No:3 spiked at 15:29 but <15 mins duration (max 0.016ppm).

PM Monitor 6 - two spikes (0.016ppm) 18:29-18:44, 23:14-23:29.

Monitor 10 - one spike (0.017ppm) 18:54-19:09.

Monitor 5 – one spike (0.016ppm) 23:11-23:26.

All spike 15 minutes or less.

Tuesday 13th February 2018

AM Odour monitor No:2 spiked at 08:17 but <15 mins duration (max 0.044ppm).

Monitor No:5 spiked at 13:00 but <15 mins duration (max 0.020ppm) & at 15:44 15 mins (max 0.017ppm).

Grit channel cleaning works ongoing.

PM No odour spikes. No other issues.

Wednesday 14th February 2018

AM Monitor No:5 spiked @ 13:40 but <15 mins notice.

PM No odour spikes. No other issues.	
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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 m³						
OMP limit	500					
09/02/18	0	1443	595	2038	4897	6935
12/02/18	0	946	928	1874	946* (could be 3575?)	5449
13/02/18	394	1360* (should be 1299)	595	5442	4576	6925* (should be 6864)

* Figures entered in red are as stated on TW Sludge Dip Record Sheet (TW Management Checked) which are incorrect. Figures entered in brackets are (where possible) correctly totalled PST amounts.

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 70 imports of sludge over the last week, each import containing 30m³ of sludge.

As LBH note, this has not been required in 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, 6, 7 & 8 were all in use but had a very wet seals that were bubbling off small amounts of gas.

Digester 9 was out of use.

Digesters 10, 11 & 12 were all in use but had a very wet seals that were bubbling off small amounts of gas.

Digesters 13 & 14 were out of use.

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

Digester 16 was out of use.

Digester 17, 18, 19 & 20 were all in use but had a very wet seals that were bubbling off small amounts of gas.

Automatic dosing of anti-foaming agent in now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along approx <1/4 of its length on the nearside with thick sludge at the time of

Tanker cleans out the channel on a weekly basis

the inspection.

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 tanks (71-78).

At the time of the inspection all tanks except 71 were in operation.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames Water advised screens 1 & 3 were out of service due to maintenance.

Skips

On the East side there were two 8yrd skips full of liquid & material which had been pumped from the screen house maintenance operation.

There was also one empty 12yrd skip and one open bulk carried (20 yrd) which contained general rubbish from the site (not water treatment waste).

No odour was present in the area.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

On the West side there was one 8yrd skip which contained general rubbish & timber from the site (not water treatment waste) & one open bulk carried (20 yrd) that was empty.
No odour was present in the area.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection.
The Thames Water officer confirmed 9 of the 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 (Old)

No issues appeared evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was partially clogged with floating debris.

The surface of the aeration lanes are much improved and are now free flowing again.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 09/12/2018

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



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 8 th February 2018	
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 -- approximately 25% of tank covered by sludge – requires further flushing. Hoppers 1, 2 & 3 drained down to 25% from bottom level.</p> <p>Tank 1B – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 2B – Tank empty and flushed - approximately 25% of tank covered by grit and sludge – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3A – Tank empty and flushed clean - Hoppers 1, 2 & 3 drained down to bottom level.</p> <p>Tank 3B – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 drained down to bottom level.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

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 empty and flushed - approximately 5% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level.

Tank 6B – – Tank empty and flushed - approximately 5% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 drained down to bottom level

Tank 7A – Tank empty and flushed - approximately 10% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained down to bottom level but Hopper 2 thick with black sludge – requires further flushing.

Tank 7B – Tank empty and flushed – approximately 5% of tank covered by grit – requires further flushing - Hoppers 1, 2 & 3 full – issue with faulty subterranean non-return valve allowing back-filling of hoppers – requires repair/replacement.

Tank 8A – Tank recently returned – approximately 80% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Tank 8B – Tank empty and flushed - approximately 5% of tank covered by grit – requires further flushing. Hoppers 1, 2 & 3 drained down to 50% from bottom level.

Feed Channel - The level of effluent in both feed channels was low – approximately 5-10% - almost bottomed out in places – some grit and sludge – no local odour.

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	0.006	ppm	13:30
Monitor 2	0.009	ppm	13:30
Monitor 3	0.000	ppm	13:30
Monitor 4	0.009	ppm	13:30
Monitor 5	0.007	ppm	13:30
Monitor 6	0.010	ppm	13:30
Monitor 7	0.006	ppm	13:30
Monitor 8	0.009	ppm	13:30
Monitor 9	0.007	ppm	13:30
Monitor 10	0.008	ppm	13:30
Monitor 11	0.000	ppm	13:30
Monitor 12	0.006	ppm	13:30
Monitor 13	0.009	ppm	13:30
Wind Speed	6	mph	
Wind Direction	181°		

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

Thursday 1st February 2018:

AM – Cold with Sun and light cloud.

All OMU's in use.

Observations: “Odour monitors being serviced today. Spike from Monitor 5 0.038ppm (or 0.088 ?) @ 09.44 till 09.57.

Actions: “No action”.

PM – Cool.

All OMU's in use.

Observations: “No odour issues. Nothing to report on Trends.”

Actions: None noted.

Friday 2nd February 2018:

AM – Cold with Sun and heavy cloud.

All OMU's in use.

Observations: “No odour problems.”

Actions: None noted.

PM – Sun with heavy cloud and rain.

OMU 11 out of use.

Observations: “No odour problems.”

Actions: None noted.

Saturday 3rd February 2018:

AM – Cool with Partial Sun and heavy cloud and rain.

All OMU's in use.

Observations:

“Odour monitor 5 spiked @ 11:28 (0.021) for under 15 minutes. No odour problems.

Actions: None noted.

PM – Cold with Partial Sun and heavy cloud and rain.

All OMU's in use.

Observations: “No odour spikes.”

Actions: None noted.

Sunday 4th February 2018:

AM – No observations made.

All OMU's in use.

Observations: “Odour monitor No.5 spiked @ 0.027ppm at 15:44 - 15:58.”

Actions: “No odours found.”

PM – No observations noted.

All OMU's in use.

Observations: “Mon 2 0.015 @ 18:02 – 18:59.”

Actions: None noted.

Monday 5th February 2018:

AM – Cold with Sun and partial cloud.

OMU - All OMU's in use.

Observations: "Monitor 5 – spike 15:40 – 15:55 0.030ppm. Monitor 9 – spike 13:40 – 13:55 0.020ppm. Spikes investigated. Unable to identify source of odour."

Actions: None noted.

PM – Cold.

All OMU's in use.

Observations: "OM 1-5 No spikes."

Actions: None noted.

Tuesday 6th February 2018:

AM – Cold with Sun and partial cloud.

All OMU's in use.

Observations: "Monitor 4 – one spike 0.018ppm. No odour identified."

Actions: None noted.

PM – No observations noted.

All OMU's in use.

Observations: "Odour monitor 4 spiked 0.018ppm. Area at back of Power House checked and all OK.

Actions: None noted.

Wednesday 7th February 2018:

AM – Cold with Sun and partial cloud.

All OMU's in use.

Observations: "Monitor 10 – one spike 0.018ppm 16:09 – 16:25."

Actions: "Digester Bell height high. Waste gas burner on."

PM – Freezing with bright Sun.

All OMU's in use.

Observations: "No odour spikes."

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					
02/02/18	0	2174	970	3144	7592	10736
05/02/18	0	1987	2906	4893	7925	12818
08/02/18	0	1861	970	2831	4232	7063

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 within three days.

As LBH note, this has not been required in the last week.

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 – evidence of dried spill requiring clean-up.

Digester 6 - in use – seal level approx. 2ft below coping stones – seal weak and bubbling – evidence of dried spill requiring clean-up.

Digester 7 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring 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 vigorously – ongoing spill from tank requiring clean-up – Bell height high – requires draw down of biogas.

Digester 9 - in use – seal level approx. 2ft below coping stones – good seal (stones in use).

Digester 10 – in use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 11 - in use – seal level approx. 3ft below coping stones – seal weak and bubbling vigorously – ongoing spill from tank requiring clean-up.

Digester 12 - in use – seal level approx. 2ft 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. 1ft below coping stones – good seal (stones in use).

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 15 - in use – seal level approx. 1ft below coping stones – seal weak and bubbling – ongoing spill from tank requiring 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. 3ft below coping stones – seal weak and bubbling.

Digester 19 -- in use – seal level approx. 4ft below coping stones – seal weak and bubbling.

Digester 20 - in use – seal level 5ft below coping stones - seal weak and bubbling.

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 & 6x 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

Sludge Screening House

Shutter doors open at time of inspection – contractors on site undertaking maintenance - no local odours.

Imported Sludge

Ten imports of 35m³ 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). Tank 71 drained down and out of service.

Skips

1x small open skip containing general waste located by Main Pumping Station

2x empty small grit slips. – Ongoing spill from plant above – with ponded sludge/grit and rag hanging from plant – requires removal.

1x large open skip – half full of general waste and one small open empty skip located on Service Road by FST's 71-78.

By the pasteurization plant there was one small open skip containing rag – covered by frame with yellow tarpaulin.

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

1x small open skip approximately 50% full of mixture of rag and timber offcuts located by West side Inlet Works.

The doors are kept open during maintenance work as a health and safety

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered

East Side Screen House

All doors closed.

Pasteurisation Plant

The pasteurisation plant is in service and fully operational.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use.

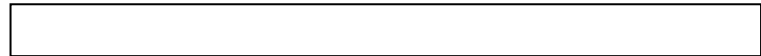
West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 30% obstructed in one channel – requires jetting.

New Works (West Side)

Feed Channel for Aeration Lanes 20 & 22 – 25 clear. Aeration Lane 21 approximately 20% obstructed – requires jetting.

Approximately 900% of tanks have again developed “fluffy” coverage across surface – worsened since previous inspection. Quantity of physical detritus in tank that has bypassed screener has decreased significantly. Sprinkler head performance has been improved (cleaned/pressure increase).



Odour Control Unit (OCU) performance monitoring – (07/02/18)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	2.470 2.196 2.100	Unknown	Unknown
Main pumping station outlet	0.152 0.146 0.137	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
Thickening plant outlet	0.005 0.005 0.005	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)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 0.008	0.5	Yes



TW Site Inspection

Date of inspection: 01 st February 2018	
Attendees: Mr A Devine (L B Hounslow) & Mr D Kalamantis (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty but had sludge at the bottom end of the tank. Hopper 1 was full and required overpumping. Hoppers 2 & 3 were all approx <math>< \frac{1}{4}</math> full and and needed overpumping.</p> <p>Tank 1B was empty & clean. Hoppers 1 & 2 were all drained down. Hopper 3 was full and required overpumping.</p> <p>Tank 2A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{1}{4}$ full and needed overpumping.</p> <p>Tank 3A was empty & clean. Hoppers 1, 2 & 3 were all approx <math>< \frac{1}{4}</math> full and needed overpumping.</p> <p>Tank 3B was empty & clean. Hoppers 1, 2 & 3 were all approx <math>< \frac{1}{4}</math> full and needed overpumping.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty & clean. Hoppers 1, 2 & 3 were all full and needed overpumping.</p> <p>Tank 6B was empty & clean. Hoppers 1, 2 & 3 were all full and needed</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

overpumping.

Tank 7A had some grit in the tank. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but clogged with grit.

Tank 7B had some grit in the tank. Hoppers 1, 2 & 3 (shallow hoppers) were drained down but hoppers 1 & 2 were clogged with grit.

Tank 8A had a backfilling issue and there was a small amount of effluent in the tank. Hoppers 1, 2 & 3 were all full and needed overpumping.

Tank 8B was empty but had grit across a lot of the surface area. Hoppers 1, 2 & 3 were all approx half full and needed overpumping.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was approximately 70% full of effluent along its entire length.

Tanker cleans out the channel on a weekly basis

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 14:24).

Monitor 1	0.000	ppm
Monitor 2	0.008	ppm
Monitor 3	0.000	ppm
Monitor 4	0.009	ppm
Monitor 5	0.006	ppm
Monitor 6	0.008	ppm
Monitor 7	0.000	ppm
Monitor 8	0.004	ppm
Monitor 9	0.007	ppm
Monitor 10	0.008	ppm
Monitor 11	0.000	ppm
Monitor 12	0.007	ppm
Monitor 13	0.007	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 25th January 2018

AM No odour issues.

PM Odour monitor 5 spiked to 0.033ppm at 06:24am but less than 15 minutes. Odour monitor 5 also spiked to 0.027ppm at 07:20am but less than 15 minutes.

Friday 26th January 2018

AM No odour issues found or reported.

PM Odour monitor 5 spiked to 0.049ppm for 1 hour. Area along main drive checked and around aeration units. No obvious odours found.

Saturday 27th January 2018

AM Odour monitor 8 spiked to 0.026ppm at 10:38am for 30 minutes. Area checked and no obvious odours found.

PM Odour monitor 4 spiked at 0.016ppm between 21:40pm to 21:50pm. No odour source found.

Sunday 28th January 2018

AM Odour monitor 5 spiked to 0.070ppm. Less than 15 minutes.

PM No odour spikes. No other issues.

Monday 29th January 2018

AM No odour issues. Nothing to report on trends.

PM Odour monitor 5 spiked at 0.046ppm between 23:24pm to 23:38pm (under 15 minutes). Odour monitor 8 spiked at 0.021 between 19:24pm to 19:32pm. No other issues.

Actions Taken No odour source found.

Tuesday 30th January 2018

AM Odour monitor 5 spiked at 0.032ppm between 09:28am to 09:41am. Odour monitor 6 spiked at 0.015ppm between 17:17pm to 17:51pm. Odour monitor 8 spiked at 0.022ppm between 10:12am to 10:25am.

PM Odour monitor 7 peaked at 0.017ppm for 1 hour.

Actions Taken Storm Tank area check. No obvious odours found.

Wednesday 31st January 2018

AM Odour monitor 4 spiked at 0.017ppm between 10:44am and 10:54am.

PM Odour monitor 5 spiked at 0.034ppm between 01:25am to 02:09am.

Actions Taken Area along drive checked. Nothing of note found

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					
26/01/18	4380	2798	783	7961	2795	10756
29/01/18	1462	2817	1593	5872	5910	11782
31/01/18	1377	2049	1405	4831	7875	12706

The sludge stock levels for the West side circular primary settlement tank 1 were **not compliant** with the OMP trigger level (500m³) on the 26/01/18, 29/01/18 and 31/01/18 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 within three days and which has been complied with in this instance

Explanation to the high levels of sludge in the PSTs: TW advised that the sludge readings are not true readings for sludge in the West Side PSTs 1. Thames Water advised that there is clean water being pumped to the head of the circular PSTs (West Side) and into circular PST 9. The force of this water entering PST 9 is causing the thin layer of sludge within the tank to be blown up and mixed throughout the tank (mixing blanket). When the tanks are dipped for sludge they are encountering it at a much higher level due to this mixing. Thames Water has to record when they encounter sludge as part of their procedures and this is why they believe they consider they have the false higher readings. Another reason why they believe these are false positives is due to the flow out of the PST. If the levels of sludge present in the tank are correct they would expect to see flows at 40l/s however they have flows of 60l/s with current levels. Thames Water advised they would have flow like this with lower levels of sludge in the tank and therefore they do not believe it is an issue and would also not be an odour issues.

LBH notified.

Thames Water have confirmed that the high readings shown have now been addressed by diverting the return flow to the covered rectangular PSTs. Thames Water have also confirmed that the sludge dip readings for the West PSTs 1 have returned to below 500m³. Thames Water took 4 portable Jerome monitor readings while the sludge dip readings were above 500m³ and the results were all zero.

Imported Sludge

There have been 70 imports of sludge over the last week, each import containing 30m³ of sludge.

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 & 6 were both in use but had a very weak seals. Digester 5 had a large spill which went over the coping stones and onto the tarmac.

Digester 7 was in use but had a very weak seal that was bubbling off gas.

Digester 8 was in use but had a very weak seal.

Digester 9 was in use and had a good seal.

Digesters 10 was in use but had a very weak seal.

Digester 11 had a very large spill around the entirety of the tank. The spill had come over the coping stones and was flowing across the tarmac.

Digester 12 were in use but had very weak seals

Digester 13 is currently out of use.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

<p>Digester 14 was in use and had a good dry seal.</p> <p>Digester 15 was in use but had a very weak seal and there was evidence of a spill over the coping stones onto the tarmac.</p> <p>Digester 16 is currently out of use.</p> <p>Digester 17, 18, 19 & 20 were all in use but had very weak seals. Digester 19 was noted to have a very high seal.</p> <p>Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p> <p>Thames Water advised the spills would be cleaned up today.</p>	
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along one third of its length on the nearside with thick dry sludge at the time of the inspection.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>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.</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). At the time of the inspection all tanks except 71 were in operation.</p> <p><u>East Side Screen House</u></p> <p>The screen house doors were closed at the time of the inspection.</p>	

Thames confirmed all screens are in operation but undergoing cleaning work.

Skips

On the East side there was one open bulk carrier that had general waste that was open and uncovered.

On the West side there was one 6yd skip that contained rag which was uncovered. Thames Water advised that this would be covered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed that 9 streams were running.

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.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

New Works (West Side)

The mixed liquor feed channel serving the aeration lanes was free flowing at the time of the inspection.

The surface of the aeration lanes had got worse with a foam covering much of the surface of the tanks and much rag a debris noted in the lanes.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 01/02/2018

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			



TW Site Inspection

Date of inspection: 25 th January 2018																																			
Attendees: Mr A Devine (L B Hounslow) & Mr D Kalamantis (Thames Water).																																			
LB Hounslow Observation		Thames Water Action / Response																																	
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>All storm water tanks (1A to 8B) were full at the time of the inspection. Amajets 1, 2 and 3 were on in tanks 2A, 3A, 3B and tanks 6A to 8B.</p> <p><u>Storm Water Channel</u></p> <p>The storm feed channel serving STW's 1A-8B was approximately 70% full of effluent along its entire length.</p>		<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>																																	
<p><u>Odour Monitors</u></p> <p>The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 14:49).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Monitor 1</td><td>0.005</td><td>ppm</td></tr> <tr><td>Monitor 2</td><td>0.008</td><td>ppm</td></tr> <tr><td>Monitor 3</td><td>0.000</td><td>ppm</td></tr> <tr><td>Monitor 4</td><td>0.008</td><td>ppm</td></tr> <tr><td>Monitor 5</td><td>0.009</td><td>ppm</td></tr> <tr><td>Monitor 6</td><td>0.010</td><td>ppm</td></tr> <tr><td>Monitor 7</td><td>0.007</td><td>ppm</td></tr> <tr><td>Monitor 8</td><td>0.009</td><td>ppm</td></tr> <tr><td>Monitor 9</td><td>0.009</td><td>ppm</td></tr> <tr><td>Monitor 10</td><td>0.009</td><td>ppm</td></tr> <tr><td>Monitor 11</td><td>0.009</td><td>ppm</td></tr> </table>		Monitor 1	0.005	ppm	Monitor 2	0.008	ppm	Monitor 3	0.000	ppm	Monitor 4	0.008	ppm	Monitor 5	0.009	ppm	Monitor 6	0.010	ppm	Monitor 7	0.007	ppm	Monitor 8	0.009	ppm	Monitor 9	0.009	ppm	Monitor 10	0.009	ppm	Monitor 11	0.009	ppm	
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Monitor 11	0.009	ppm																																	

Monitor 12	0.008	ppm	
Monitor 13	0.009	ppm	

Complaints

The Council received no complaints in the preceding week.

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

Thursday 18th January 2018

AM Odour monitor 8 spiking at 09:56am. Less than 15 minutes duration (max 0.017ppm).

PM No spikes on trends. No odour issues during shift.

Friday 19th January 2018

AM Monitor No.7 spiked at 13:25pm. Less than 15 minutes duration (max0.018ppm)

PM No odour problems.

Saturday 20th January 2018

AM No odour issues reported or discovered.

PM No odour spikes.

Sunday 21th January 2018

AM No odour spikes. Spillage in east inlet combi area. Digesters foaming – day ops cleaning up.

PM Odour monitor 4 spiked less than 15 minutes 0.016ppm. Odour monitor 8 spiked less than 15 minutes 0.010ppm.

Actions Taken Digester anti foamed and area cleaned up. New I.B.C. placed on antifoam pump.

Monday 22nd January 2018

AM No odour spikes. No other issues.

PM No odour spikes. No other issues.

Tuesday 23rd January 2018

AM Odour monitor 5 0.029ppm from 11:24 to 11:38. No other issues.

Actions Taken Odour suspected to be from PAS area. No source found. Dimitrios was doing walk around with detector later in the day.

PM Odour monitor number 8 spiked once at 18:52 but less than 15 minutes duration (0.019ppm).

Wednesday 24th January 2018

AM Odour monitor 2 spiked at 0.019ppm from 6:27am. Suspect monitor not updated on SCADA as of 17:30pm. Odour monitor 8 spiked at 0.022ppm between 13:24pm to 13:36pm. No other issues

Any Action Taken No odour source found.

PM Odour monitor number 5 spiked at 22:08 but less than 15 minutes duration (max 0.018ppm). Storm tanks full and storming to river for most of shift.

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					
19/01/18	2036	2254	1218	5508	5573	11081
22/01/18	748	2048	1136	3932	1785	5717
24/01/18	2682	2465	971	6118	2898	9016

The sludge stock levels for the West side circular primary settlement tank 1 were **not compliant** with the OMP trigger level (500m³) on the 19/01/18, 22/01/18 and 24/01/18 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 within three days and which has been complied with in this instance

Explanation to the high levels of sludge in the PSTs: TW advised that the sludge readings are not true readings for sludge in the West Side PSTs 1. Thames Water advised that there is clean water being pumped to the head of the circular PSTs (West Side) and into circular PST 9. The force of this water entering PST 9 is causing the thin layer of sludge within the tank to be blown up and mixed throughout the tank (mixing blanket). When the tanks are dipped for sludge they are encountering it at a much higher level due to this mixing. Thames Water has to record when they encounter sludge as part of their procedures and this is why they believe they consider they have the false higher readings. Another reason why they believe these are false positives is due to the flow out of the PST. If the levels of sludge present in the tank are correct they would expect to see flows at 40l/s however they have flows of 60l/s with current levels. Thames Water advised they would have flow like this with lower levels of sludge in the tank and therefore they do not believe it is an issue and would also not

LBH notified

be an odour issues.

Thames Water have confirmed that the high readings shown have now been addressed by diverting the return flow to the covered rectangular PSTs. Thames Water have also confirmed that the sludge dip readings for the West PSTs 1 have returned to below 500m³. Thames Water took 4 portable Jerome monitor readings while the sludge dip readings were above 500m³ and the results were all zero.

Imported Sludge

There have been 44 imports of sludge over the last week, each import containing 30m³ of sludge.

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 & 6 were both in use but had a very weak seals. Digester 5 had a large spill which went over the copping stones and onto the tarmac.

Digester 7 was in use but had a very weak seal that was bubbling off gas.

Digesters 8 was in use but had a very weak seal.

Digester 9 was in use and had a good seal.

Digesters 10, 11 & 12 were in use but had very weak seals.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

Digester 15 was in use but had a very weak seal and there was

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

<p>evidence of a spill over the copping stones onto the tarmac.</p> <p>Digester 16 is currently out of use.</p> <p>Digester 17, 18, 19 & 20 were all in use but had very weak seals. Digester 19 was noted to have a very high seal.</p> <p>Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.</p> <p>Thames Water advised the spills would be cleaned up today.</p>	
<p><u>Return Activated Sludge Channel</u></p> <p>The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along one third of its length on the nearside with thick dry sludge at the time of the inspection.</p> <p><u>West side primary settlement tanks (PST)</u></p> <p>Rectangular PSTs are now covered and odour controlled.</p> <p>Circular PSTs 9, 10, 11 & 12 were all in operation at the time of the inspection, all had clean fat free surfaces.</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>
<p><u>GENERAL</u></p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). At the time of the inspection all tanks except 71 were in operation.</p> <p><u>East Side Screen House</u></p> <p>The screen house doors were closed at the time of the inspection.</p>	

Thames confirmed all screens are in operation but undergoing cleaning work.

Skips

On the East side there was one open bulk carrier that had general waste that was open and uncovered.

On the West side there was one 6yd skip that contained rag which was uncovered. Thames Water advised that this would be covered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed that 9 streams were running.

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.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

New Works (West Side)

The mixed liquor feed channel serving the aeration lanes was free flowing at the time of the inspection.

The surface of the aeration lanes had got worse with a foam covering much of the surface of the tanks and much rag a debris noted in the lanes.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 25/01/2018

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			



TW Site Inspection

Date of inspection: 18 th January 2018	
Attendees: Mr L Phillips (L B Hounslow) & Mr D Kalamantis (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty but had sludge at the bottom end of the tank. Hoppers 1, 2 & 3 had all been drained down.</p> <p>Tank 1B was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 3B was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 6B was empty & clean. Hoppers 1, 2 & 3 all approx <¼ full and required needed draining down.</p> <p>Tank 7A was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but clogged with grit.</p> <p>Tank 7B was empty & clean. Hoppers 1, 2 & 3 were drained down.</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 8A was empty but had sludge at the top end of the tank. Hopper 1 was full and hoppers 2 & 3 were both <¼ full and required draining down.

Tank 8B was empty but had grit across a lot of the surface area. Hoppers 1, 2 & 3 were all drained down.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was empty of effluent and only had a shallow level of water (<5%) along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:24).

Monitor 1	0.005	ppm
Monitor 2	0.008	ppm
Monitor 3	0.000	ppm
Monitor 4	0.009	ppm
Monitor 5	0.007	ppm
Monitor 6	0.009	ppm
Monitor 7	0.007	ppm
Monitor 8	0.009	ppm
Monitor 9	0.008	ppm
Monitor 10	0.009	ppm
Monitor 11	0.009	ppm
Monitor 12	0.005	ppm
Monitor 13	0.008	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 11th January 2018:

AM No odour issues no spikes on trends.

PM No odour issues on site.

Friday 12th January 2018:

AM no odour spikes no spikes on trends.

PM O/M2 Spiked to 0.023PPM at 21:30 less than 15 minutes.

Saturday 13th January 2018:

AM No odour issues no spikes on trends.

PM No odour issues no spikes on trends.

Sunday 14th January 2018:

AM No spikes on trends. No odour issues.

PM No odour issues nothing to report on trends.

Monday 15th January 2018:

AM Odour Monitor 7 (0.016 PPM) at 16:23 -16:53 spill of sludge on imported sludge day works called to clean up.

PM Spillage at imported sludge cleaned. No odour spikes on trends.

Tuesday 16th January 2018:

AM No odour spikes. No other issues.

PM No odour issues on site. No spikes on trends.

Wednesday 17th January 2018:

AM Odour spike No 7 monitor 0.017PPM 16:25-16:35 No odours found.

PM Monitor 6 one spike 03:57- 04:58 0.016PPM. No other issues on site. Siloxane Plant regenerating strong smell of gas around storm tank area wind to North-East.

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					
12/01/18	1421	2382	1908	5711	5430	11141
15/01/18	1305	3192	1636	6133	5100	11233
17/01/18	1043	1922	1866	4831	5245	10706

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 and which has been complied with in this instance

Imported Sludge

There have been 28 imports of sludge over the last week, each import containing 30m³ of sludge.

Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

LBH informed

Digesters

Digesters 1-4 are permanently out of use.

Digesters 5 & 6 were both in use but had a very wet seals that were bubbling off gas.

Digester 7 was in use but had a very wet seal that was bubbling off gas. It was noted that the bell height was very high and sludge was almost to the top of the coping stones.

Digesters 8 & 9 were both in use but had a very wet seals that were bubbling off gas.

Digester 10 was in use with a major sludge spillage occurring at the time of the inspection. Sludge was pouring over the top of the coping stones around the tank.

Digesters 11 & 12 were both in use but had very wet seals that were bubbling off gas.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

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

Digester 16 is currently out of use.

Digester 17, 18, 19 & 20 were all in use but had very wet seals that were all bubbling off gas.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was relatively free flowing but was clogged along one third of its length on the nearside with thick dry sludge at the time of the inspection.

Tanker cleans out the channel on a weekly basis

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 tanks (71-78).

At the time of the inspection all tanks except 71 were in operation.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames confirmed all screens are in operation but undergoing cleaning work.

Outside the building was an uncovered open bulk carrier that was approx ½ full of rag.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Skips

On the East side there was one open bulk carrier that was empty.

On the West side there was one 16yd skip that was empty.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection.
The TW officer confirmed all 12 streams were running.

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)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris.

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – 06/11/2017

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



TW Site Inspection

Date of inspection: 11 th January 2018	
Attendees: Mr I Inman (L B Hounslow) & Mr D Kalamantis (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty but had sludge at the bottom end of the tank. Hoppers 1, 2 & 3 were all approx <math>< \frac{1}{4}</math> full and needed draining down.</p> <p>Tank 1B was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2A was empty & clean. Hoppers 1, 2 & 3 were all drained down.</p> <p>Tank 2B was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{1}{2}$ full and needed draining down.</p> <p>Tank 3A was empty & clean. Hoppers 1, 2 & 3 were all approx <math>< \frac{1}{4}</math> full and needed drained down.</p> <p>Tank 3B was empty but had sludge at the bottom end of the tank. Hopper 1 was empty, hoppers 2 & 3 were both approx $\frac{1}{4}$ full and needed draining down.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty & clean. Hoppers 1, 2 & 3 were all approx $\frac{1}{4}$ full and needed draining down.</p> <p>Tank 6B was empty & clean. Hoppers 1, 2 & 3 were all approx <math>< \frac{1}{4}</math> full and needed draining down.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Tank 7A was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down but clogged with grit.

Tank 7B was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were drained down but hoppers 1 & 2 were clogged with grit.

Tank 8A was empty but had sludge at the top end of the tank. Hopper 1 was full and hoppers 2 & 3 were both $\frac{3}{4}$ full and needed draining down.

Tank 8B was empty but had grit across a lot of the surface area. Hoppers 1, 2 & 3 were all approx $<\frac{1}{4}$ full and needed draining down.

Storm Water Channel

The storm feed channel serving STW's 1A-8B was empty of effluent and only had a shallow level of water (<5%) along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx 13:15).

Monitor 1	0.000	ppm
Monitor 2	0.004	ppm
Monitor 3	0.000	ppm
Monitor 4	0.004	ppm
Monitor 5	0.003	ppm
Monitor 6	0.003	ppm
Monitor 7	0.000	ppm
Monitor 8	0.003	ppm
Monitor 9	0.003	ppm
Monitor 10	0.003	ppm
Monitor 11	0.003	ppm
Monitor 12	-0.000	ppm
Monitor 13	0.004	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 4th January 2018

AM No spikes. No other issues.

PM No odour spikes. Foaming/spillage digester. Time Neil hosed down, anti-foam digesters.

Friday 5th January 2018

AM OM2 = 0.017 at 16:12-17:09. OM13 = 0.02 at 12:07-13:04.

PM No odour issues.

Saturday 6th January 2018

AM OM1-5 no spikes, 6-13 no spikes.

PM Monitor No:9 spiked at 18:24 but <15 mins duration (max 0.016ppm). No other odour issues found or reported.

Sunday 7th January 2018

AM OM1-5 no spikes. OM9 = 0.019 at 17:26-17:40.

PM OM8 spiked to 0.016 at 16:23 to 16:53. OM4 spiked to 0.016 at 16:38 to 17:08. Check area round river crossing & round power house, no odour detected on arrival.

Monday 8th January 2018

AM No odour issues reported.

PM No odour issues.

Tuesday 9th January 2018

AM No odour issues, nothing showing on trends.

PM OM1-5 no spikes. OM6-13 no spikes.

Wednesday 10th January 2018

AM OM8 spiked at 13:40 to 0.017ppm less than 15 minutes.

PM NOTHING ON SHEET...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					
05/01/18	498	1466	970	2934	2266	5200
08/01/18	0	2859	1751	4610	4753	9393
10/01/18	1424	2860	1158	5442	5426	10868

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 and which has been complied with in this instance

Imported Sludge

There have been 28 imports of sludge over the last week, each import containing 30m³ of sludge.

Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

LBH informed

Digesters 1-4 are permanently out of use.

Digesters 5 & 6 were both in use but had a very wet seals that were bubbling off gas.

Digester 7 was in use but had a very wet seal that was bubbling off gas. It was noted that the bell height was very high and sludge was almost to the top of the coping stones.

Digesters 8 & 9 were both in use but had a very wet seals that were bubbling off gas.

Digester 10 was in use with a major sludge spillage occurring at the time of the inspection. Sludge was pouring over the top of the coping stones around the tank.

Digesters 11 & 12 were both in use but had very wet seals that were bubbling off gas.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

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

Digester 16 is currently out of use.

Digester 17, 18, 19 & 20 were all in use but had very wet seals that were all bubbling off gas.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's

61-64 & 65-67) was relatively free flowing but was clogged along one third of its length on the nearside with thick dry sludge at the time of the inspection.

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.

Tanker cleans out the channel on a weekly basis

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).

At the time of the inspection all tanks except 71 were in operation.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames confirmed all screens are in operation but undergoing cleaning work.

Outside the building was an uncovered open bulk carrier that was approx ½ full of rag.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered

Skips

On the East side there was one open bulk carrier that was empty.

On the West side there was one 16yd skip that was empty.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed all 12 streams were running.

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)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris.

The surface of the aeration are much improved and are now free flowing again.

The sprinkler system for the aeration lanes was in use and all sprinklers appeared to be working at the time of the inspection.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – 06/11/2017

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



London Borough of Hounslow



TW Site Inspection

Date of inspection: 4th January 2018 (THIS REPORT ALSO INCLUDES FIGURES FROM 28/12/2017- NO INSPECTION HAD TAKEN PLACE DUE TO CHRISTMAS CLOSURE)

Attendees: Mr Zaheer Kadri (L B Hounslow) & Mr D Kalamantis (Thames Water).

LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>All storm tanks from 1A to tank 8B were 80% full of effluent, the amajets on all tanks were observed to be in operation. No odours were present in this part of the works.</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p><u>Storm Water Channel</u></p> <p>The storm feed channel serving STW's 1A-8B was 60% full of effluent along its entire length.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Tanker cleans out the channel on a weekly basis</p> </div>

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approx. 13:22).

Monitor 1	0.005	ppm
Monitor 2	0.007	ppm
Monitor 3	0.000	ppm
Monitor 4	0.007	ppm
Monitor 5	0.007	ppm
Monitor 6	0.007	ppm
Monitor 7	0.008	ppm
Monitor 8	0.009	ppm
Monitor 9	0.007	ppm
Monitor 10	0.009	ppm
Monitor 11	0.009	ppm
Monitor 12	0.005	ppm
Monitor 13	0.009	ppm

Complaints

The Council received no complaints in the preceding week.

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

Thursday 28th December 2017

AM

OM5 spiked to 0.025 @ 13:52 (less than 15 minute duration)

PM

No Odours or spikes

Friday 29th December 2017

AM

No Odours or spikes

PM

OM5 spiked to 0.021 @ 20:40-21:40 – No odours detected

Saturday 30th December 2017

AM

OM10 spiked to 0.019 @ 10:06-11:05 – No odours detected

OM10 spiked to 0.017 @ 14:07 - 14:20

OM10 spiked to 0.019 @ 14:51 – 14:51-15:05

OM8 spiked to 0.016 @ 16:05 – 16:21

No odours detected

PM

OM13 spiked to 0.015 @ 00:55 – 01:52

Unable to identify source of odours- OCU11 operating as usual

Sunday 31st December 2017

AM

No odours detected

PM

No odours detected

Monday 1st January 2018

AM

OM13 spiked to 0.018 @ 13:05 lasted for 55 minutes

No odours found

PM

OM7 one spike peaked to 0.016ppm 21:10-22:10 .

OM8 three spikes peaked to 0.018ppm 22:25-22:40

OM8 spiked to 0.040ppm 23:25 - 23:40

OM8 spiked to 0.016ppm 02:29- 03:26

Tuesday 2nd January 2018

AM

OM5 spiked to 0.030 @ 15:26 (less than 15 minute duration)

PM

OM4 one spike peaked to 0.020ppm at 02:37-03:33

Wednesday 3rd January 2018

AM

OM2 one spike peaked to 0.018ppm at 15:30 – 16:25 (55 Minute duration) – Tanker operations being undertaken

OM7 spiked intermittently at end of shift max peaked to 0.016ppm – Storm tanks full.

PM

OM10 one spike peaked to 0.019ppm at 09:55-10:52- Digesters area being clensed at this time

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
29/12/17	1233	679	450	2362	2759	5121
01/01/18	0	1903	1158	3061	4088	7149
03/01/18	0	946	389	1335	2265	3600
22/12/17	1038	844	450	2332	2409	4741
25/12/17	259	1027	328	1614	2754	4368
27/12/17	1243	676	470	2389	2930	5319

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 and which has been complied with in this instance

Thames Water have informed LBH that West PSTs 1 are normally above the trigger due to the current sampling technique which is leading to higher levels of sludge being reported in the PSTs. Verification has confirmed the genuine sludge stocks are below the trigger level by using a sludge judge and checking the flowrate from the base of the tanks. Sludge judging will be used daily now to ensure accurate reporting.

LBH informed

Imported Sludge

There have been 70 imports of sludge over the last week (10 deliveries daily), each import containing 30m³ of sludge.

Sludge Screening House

The large roller shutter doors 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 thick crusty seal. No evidence of spillages

Digester 6 was in use and had a thick crusty seal. No evidence of spillages

Digesters 7 had evidence of a previous spillage to one side of the digester which needed immediate attention. The coping stone was completely covered and effluent covering the walkway. This digester was gassy and a weak seal

Digester 8 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 9 was in use and had a thick crusty seal (evidence of pellets being used).

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 10 was in use and had a thick crusty seal (evidence of pellets being used).

Digester 11 was in use and had a thick crusty seal

Digester 12 was in use but had wet sloppy seal.

Digester 13 is currently out of use.

Digester 14 was in use but had a wet sloppy seal

Digester 15 was in use but had a wet sloppy seal

Digester 16 is currently out of use.

Automatic dosing of anti-foaming agent is now 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- no build-up of scum or rag along the run.

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 tanks (71-78). At the time of the inspection all tanks were in operation apart from 71 which was not in operation.

East Side Screen House

The screen house doors were closed at the time of the inspection. Thames confirmed all screens are in operation.

Skips

On the East side there was one low level open bulk carrier on site, this contained general waste and no odour was present (Not covered).

On the West side there were two empty large Bulk carriers which were empty and uncovered.

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. The TW officer confirmed all 12 streams were running.

Section 106 agreement

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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

West Side Aeration Lanes (Old)

No issues appeared evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 24 & 25 (E Battery) was clogged with rag and other floating debris. The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were still not working properly at the time of the inspection, again being clogged with pondweed.

Tanker cleans out the channel on a weekly basis.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 28/12/2017

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
Pasteurization plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes

Jerome reading

Odour Control Unit (OCU) performance monitoring – 04/01/2018			
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	0.01(av)	0.8	Yes
Thickening plant outlet	0.00(av)	0.6	Yes
Pasteurization plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.000(av)	0.6	Yes
# Jerome reading			