



London Borough of Hounslow

.Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 7th December 2021

Attendees: Mr L Phillips (London Borough of Hounslow), Ms C Simmonds (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.</p> <p>Tank 1B - Was empty, however some sludge located at the hopper end of the tank. All hoppers drained to lowest point.</p> <p>Tank 2A - Was empty and clean, some dry grit located at the hopper end of the tank. Hoppers 1 and 2 were 50% full and require draining, hopper 3 was full and requires draining/over-pumping.</p> <p>Tank 2B - Was empty, 50% of the tank covered in dry grit. All hoppers 50% full and require draining/ove-pumping.</p> <p>Tank 3A - Was empty, tanker onsite over-pumping the hoppers.</p> <p>Tank 3B - Was empty, tank recently returned and covered in sludge, requires flushing. All hoppers full and require draining/over-pumping.</p> <p>Tanks 4A, 4B, 5A & 5B - All tanks are covered and odour controlled. Still unable to gauge condition of these tanks as the internal lighting</p>	

system is still not working.

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

Tank 6B - Was empty and clean. All hoppers full and required draining/over-pumping.

Tank 7A - Was empty but had wet sludge across 50% of the tanks surface at the hopper end. Hoppers 1, 2 and 3 (shallow hoppers) were relatively clean.

Tank 7B - Was empty but had wet sludge across 30% of the tanks surface at the hopper end and along the left side and top end of the tank. Hoppers 1, 2 and 3 (shallow hoppers) had some grit built up.

Tank 8A - Was empty but had wet liquid across 20% of the tanks surface at the hopper end. All hoppers were full and required draining down/over-pumping.

Tank 8B - Was empty but had wet sludge across 50% of the tanks surface at the top end and along the left hand side of the tank. All hoppers full and require draining/over-pumping.

Storm Feed Channel - The level of effluent in both feed channels was low, bottomed out in some areas, it was again noted that large amounts of grit (possibly 18" thick in places) was present, along with sludge containing solid deposits in a number of areas.

This material was present in both the near and far side channel, and both were odorous in places.

Complaints

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

The Council received no complaints by either email or the on-line web system in the preceding week.

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

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 07/12/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:49pm
Monitor 2	0.001	ppm	13:51pm
Monitor 3	0.000	ppm	13:51pm
Monitor 4	0.005	ppm	13:51pm
Monitor 5	0.008	ppm	13:51pm
Monitor 6	0.000	ppm	13:51pm
Monitor 7	0.000	ppm	13:51pm
Monitor 8	0.008	ppm	13:51pm
Monitor 9	0.000	ppm	13:51pm
Monitor 10	0.005	ppm	13:52pm
Monitor 11	0.000	ppm	13:52pm
Monitor 12	0.005	ppm	13:52pm
Monitor 13	0.005	ppm	13:52pm
Wind Speed	12.450	mph	13:52pm
Wind Direction	169.807		13:52pm

Odour Log (Thames)

Tuesday 30th November 2021

DAY SHIFT:

Temp: Cool.

Weather: Cloudy.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations /Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM5 0.015ppm 17:52 – 18:05

OM3 0.020ppm 04.40 – 04:54.

Operational issues / causes observed: No odour issues on site. Both spikes less than 15 minutes.

Actions Taken: Blank.

Wednesday 1st December 2021

DAY SHIFT:

Temp: Cool.

Weather: Cloudy.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.: OM8 spiked at 16:34 – 16:50
max 0.20ppm.

Operational issues / causes observed: PAS odour in the air on main drive near powerhouse.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cold.

Weather: Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Thursday 2nd December 2021

DAY SHIFT :

Temp: Freezing.

Weather: Sunny W/ patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: 17:9 – 17:18 OM8 max 0.017.

Operational issues / causes observed: No odour issues on site. Both spikes less than 15 mins.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Cold

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Friday 03rd December 2021

DAY SHIFT:

Temp: Cool.

Weather: Cloudy.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues found or reported.

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: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Saturday 04th December 2021

DAY SHIFT:

Temp: Cold.

Weather: Patchy rain.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM5 0.015ppm 06:07 – 06:20.

Operational issues / causes observed: No odour issues spike less than 15 minutes.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Cold.

Weather: Patchy rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM8 spiked at 22:18 – 22:35 and 03:50 – 04:06 both had max 0.025ppm.

Operational issues / causes observed: PAS odour in on main drive near powerhouse.

Actions Taken: Blank.

Sunday 05th December 2021

DAY SHIFT:

Temp: Cold.

Weather: Patchy 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.

NIGHT SHIFT:

Temp: Cold.

Weather: Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Monday 06th December 2021

DAY SHIFT:**Temp:** Cold.**Weather:** Patchy rain.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** No odour issues found or reported.**Operational issues / causes observed:** Blank.**Actions taken:** Blank.**NIGHT SHIFT:****Temp:** Cold.**Weather:** Overcast night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** No odour issues found or reported.**Operational issues / causes observed:** Blank.**Actions Taken:** Blank.**Wednesday 7th December 2021****DAY SHIFT:****Temp:** Cool.**Weather:** Rain.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** No odour issues found or reported.**Operational issues / causes observed:** Blank.**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					
01/12/2021	0	1780	1030	2810	1568	4378
03/12/2021	0	1593	824	2417	1240	3657
06/12/2021	0	1405	1030	2435	1240	3675

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 an average of 10 imports of sludge per day in the preceding week.

No.5 Pumping Station

The door and one window of No.5 pumping station were closed at the time of the inspection.

Sludge Import Area

The condition around the sludge import area has improved and was noticeably cleaner.

Both of the two skips present were fully covered and both skips with the tailor made tarpaulins

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection.

Thames advised this unit is currently out of use due to ongoing maintenance, which appeared to be taking place at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 - was out of service.

Digester 6 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 7 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 8 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 9 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 10 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 11 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 12 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 13 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 14 - was in service weak sloppy seal bubbling. No evidence of previous spillage.

Digester 15 - was out of service.

Digester 16 - was in service and had a very wet seal that was bubbling off minimal amounts of gas. It was noted digester 16 had a high bell and had been spitting that required cleaning.

Digester 17 - was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 18 - was out of service.

Digester 19 - was in service weak sloppy wet seal. No evidence of previous spillage.

Digester 20 - was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Anti-foaming agent is in use, which TW advised was being applied manually to all operational digesters due to the automatic dosing equipment not operating.

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 in operation at the time of the inspection. All 8 tanks had varying amounts of green algae scum on tanks surface, some of which appeared lumpy. However no odour was present.

Skips

On the East side was one 14yds open skips that was covered with a tarpaulin, which Thames advised was due to be removed shortly.

Also present was one 20yds open bulk carrier that contained a small amount of grit, and one 20yds open bulk carrier that contained general rubbish (Old flexible pipe)

Also present was one 40yds closed bulk carrier that was empty

Two of the three roller shutter doors on the East side grit building were open and a Bobcat Skidsteer loader was parked inside.

On the service road between FST's 20 and 24 was closed 14yds skip that was clearly signed "Rag only".

On the service road next to the raw sludge screening building was a closed 14yds skip.

East Side Screen House

Both sets of doors and the roller shutter were open due to ongoing maintenance within the building. Contractors were on site carrying out internal works at the time of the inspection.

Return Activated Sludge Channel

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

The far side channel was clogged along 50% of its length, there was a significant number of weeds were growing out of it and through the steel grating.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PST's 9, 10 and 11 were all in use. All had some surface scum that appeared to be fatty type algae.

Circular PST 12 is currently out of service. It was noted that the tank contained a large quantity of solid fat, thick dry sludge, algae, rag and other debris which was not all present during the officers previous visit.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes

The previous biological issues in all lanes now seems to have been resolved and the effluent appeared to be free-flowing with reduced surface foam.

A large number of the sprinklers were still out of operation and floating debris was present in most of these areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. However, lane 22 was partially clogged on the surface with thick sludge.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything

appeared to be in a good tidy order.

Old Inlet Works (West Side)

A walk around of the existing inlet was carried out and everything appeared in good order

Odour Control Unit (OCU) performance monitoring: 22/11/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.00 0.00 0.00	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	0.05	Unknown
Thickening plant outlet	0.05 0.02 0.07	0.6	Unknown
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Unknown
Pasteurisation (OCU 12)	0.06 0.03 0.01	0.5	Unknown
Transfer PS inlet	58.77 51.61 47.01	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown
GBT Plant OCU Outlet	0.00 0.00	Unknown	Unknown

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