



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 14th September 2021 (13:12pm)

Attendees: Mr L Phillips (London Borough of Hounslow), Mr Tim Palmer (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was full all Amajets in operation during inspection.

Tank 1B was full, Amajets 1 and 3 in fully operational Amajet 2 not operational.

Tank 2A was full, all Amajets in operation during inspection.

Tank 2B was full, all Amajets in operation during inspection..

Tank 3A was full, all Amajets in operation during inspection.

Tank 3B was full, all Amajets in operation during inspection.

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.

Tank 6A was clean and empty however all three hoppers were full of effluent and covered with algae.

Tank 6B was full, Amajets 1 and 2 in full operation, Amajet 3 not operational.

Tank 7A was full, Amajets 1 and 3 in full operation, Amajet 2 not operational.

Tank 7B was full, all Amajets in operation during inspection.

Tank 8A was full, all Amajets in operation during inspection.

Tank 8B was full, all Amajets in operation during inspection.

Storm Feed Channel - The level of effluent in both feed channels was at least 40% and was dark and murky but no signs of fatty deposits.

Complaints

The Council received 3 complaints by telephone in the preceding week.

Ref: A20661

A complaint was received via telephone on the 08/09/2021 at approx. 10:34 from Wainwright Grove area of Isleworth. The duty Officer called the Comp back at 11:31 to advise that a visit would be made to the location. A monitoring visit was made at 11:45 the officer noted highest average reading was 0.003ppm. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.010ppm.

Ref: A20676

A complaint was received via telephone on the 08/09/2021 at approx. 13:09 from Hall Road area of Isleworth. The Duty Officer carried out a visit to the area and took readings at the location the highest average reading was 0.003ppm. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.09ppm.

Ref: A20957

A complaint was received via telephone on the 13/09/2021 at approx. 15:38 from Hall Road area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.09ppm.

The Council received 7 complaints via the on-line web system and 1 complaint via email in the preceding week.

Ref: A20616

A complaint was received via online portal on the 07/09/2021 at approx. 09:41 from Whitton Dene area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.08ppm.

Ref: A20638

A complaint was received via online portal on the 07/09/2021 at approx. 18:13 from Wainwright Grove area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.05ppm.

Ref:A20642

A complaint was received via online portal on the 07/09/2021 at approx. 18:31 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.06ppm.

Ref: A20665

A complaint was received via online portal on the 08/09/2021 at approx. 11:32 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.01ppm.

Ref: A20679

A complaint was received via online portal on the 08/09/2021 at approx. 13:44 from Heldman Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.05ppm.

Ref: A20844

A complaint was received via online portal on the 11/09/2021 at approx. 13:53 from Dawes Avenue area of Isleworth. An email was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.010ppm.

Ref: A20949

A complaint was received via online portal on the 13/09/2021 at approx. 14:31 from Harvesters Close area of Isleworth. A letter was sent to the complainant with guidance. On the day of inspection it was noted that there were no unusual odour spikes at the time the complaint was received. The highest spike levelled at 0.06ppm.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 14/09/2021 at the time of the inspection are below.

Monitor 1	0.0003	ppm	13:14pm
Monitor 2	0.001	ppm	13:14pm
Monitor 3	0.000	ppm	13:14pm
Monitor 4	0.000	ppm	13:14pm
Monitor 5	0.000	ppm	13:14pm
Monitor 6	0.000	ppm	13:14pm
Monitor 7	0.003	ppm	13:15pm
Monitor 8	0.000	ppm	13:15pm
Monitor 9	0.003	ppm	13:15pm
Monitor 10	0.003	ppm	13:15pm
Monitor 11	0.000	ppm	13:15pm
Monitor 12	0.000	ppm	13:15pm
Monitor 13	0.000	ppm	13:15pm
Wind Speed	0.210	mph	13:15pm
Wind Direction	13.658		13:15pm

Odour Log (Thames)

Sunday 5th September 2021

DAY SHIFT

Temp: Warm.

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: Warm.

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.

Monday 6th September 2021

DAY SHIFT:

Temp: Hot.

Weather: Sunny W/ patchy clouds.

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: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: Blank.

Observations / Customer Complaint: Odour complaint from TW3 Heldman Close @ 21:30 – location to the West of the Works. OM3 spiked 0.058ppm 20:03 – 20:48. OM5 0.018ppm 20:18 – 20:48, 0.021ppm 22:00 – 22:19.

Operational issues / causes observed: Site inspection made. OCU11 discharging high odour from stack still 1359ppb.

Actions Taken. Blank.

Tuesday 7th September 2021

DAY SHIFT:

Temp: Hot.

Weather: Sunny.

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: Warm.
Weather. Clear night.
Odour Readings: All OMU's in operation.
Time: Blank.
Observations / Customer Complaint: OM3 spiked to 0.024 18:32 – 18:48.
Operational issues / causes observed. No source found.
Actions taken: Blank.

Wednesday 8th September 2021

DAY SHIFT:
Temp: Hot.
Weather: Sunny.
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: Warm.
Weather: Overcast.
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 9th September 2021

DAY SHIFT:
Temp: Warm.
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: Warm.
Weather: Overcast.
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 10th September 2021

DAY SHIFT:
Temp: Warm.
Weather: Sunny W/ patchy cloud.
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: 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.

Saturday 11th September 2021

DAY SHIFT:
Temp: Warm.
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:** Warm.**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.**Sunday 12th September 2021****DAY SHIFT:****Temp:** Cool.**Weather:** Clear night.**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:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM5 spiked at 19:19 – 19:33 max 0.021ppm, OCU 11 stack output 1.22ppm which is above; OM3 spiked at 21:17 – 21:34, max 0.035ppm trigger value.**Operational issues / causes observed:** Blank.**Actions Taken:** Blank.**Monday 13th September 2021****DAY SHIFT:****Temp:** Warm.**Weather:** Cloudy.**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: Clear night.
Odour Readings: All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint: OM3 spiked at 21:04 – 21:18 but 15 mins duration max 0.018ppm.
Operational issues / causes observed: OCU11 stack output 1.33ppm which is above trigger value.
Actions Taken: Blank.

Tuesday 14th September 2021

DAY SHIFT:
Temp: Warm.
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: Storm tanks filled going to river.
Actions taken: Blank.
NIGHT SHIFT:
Temp: Cool.
Weather: Clear night.
Odour Readings: All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint: No odour issues.
Operational issues / causes observed: Storm tanks returning.
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					
08/09/2021	0	946	1030	1976	912	2888
13/09/2021	0	946	885	1831	912	2743

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 15 imports of sludge per day in the preceding week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection. Slight unpleasant / offensive odour was noticeable.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably clean. No odours witnessed.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection due to ongoing maintenance by onsite contractors.

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 and had a low wet seal, no evidence of recent sludge spillages.

Digester 7 was in service and had a low sludgy seal. A spill had taken place on the far side of the digester nearest the service road that required cleaning up. This side was also noticeably erupting.

Digester 8 was in service but had a weak seal. No evidence of spill.

Digester 9 was in service but had a weak seal. No evidence of spill.

Digester 10 was in service but had a weak seal. No evidence of spill.

Digester 11 was in service but had a weak seal. No evidence of spill.

Digester 12 was in service but had a weak seal. No evidence of spill.

Digester 13 was in service but had a weak seal. No evidence of spill.

Digester 14 was in service but had a weak seal. No evidence of spill.

Digester 15 was out of service.

Digester 16 was in service and had a wet seal that was bubbling off and erupting in some parts and spilling on the coping stones.

Digester 17 was in service and had a low wet seal. Noticeably a lot of weeds and foliage growth around the digester.

Digester 18 out of service.

Digester 19 out of service.

Digester 20 was in service but had a weak seal. No evidence of spill.

Anti-foaming agent is in use, which TW advised was also being applied manually to all operational digesters.

Advised Tim Palmer TW to report back the matter with overgrown vegetation around the digesters.

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 and had light green surfaces from algae that had settled. There was no evidence of fatty deposits on the surface. The hose on the arm was rotating and clearing off any remaining deposits.

Skips on the

On the East side grit house there were 2 x 14yds open skips- both skips contained a small amount of general rubbish & inert material. Tarpaulin was present but not covering the skips.

On the East side grit house there was 1 x red 20yds open bulk carrier that contained grit, no tarpaulin cover was in place. There was 1 x red 20yds closed bulk carrier that was empty and did not look in use. This was placed to the side against the wall.

There was one was 1 x 14yds skip on the west side of the works near the No5 Pumping station which contained general waste however no tarpaulin in place.

On the West side adjacent to the pumping station there was a 1 x 14yds skip filled with some inert material.

East Side Screen House

The doors at both ends of the screen house were closed at the time of the inspection. The roller shutters were also closed.

No other issues appeared evident.

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 80% of its length, there was a significant number of weeds which have been growing out of it and through the steel grating. This has been in the same condition most part of the year.

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 and had relatively fat free surfaces. No other issues were evident with these tanks.

Circular PST 12 is still out of service.

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

All lanes are continuing to have biological issues, however surface movement was visible. Thick fluffy scum covered virtually the entire surface area of all lanes at E Battery but the dividing walls were more visible than previously observed.

A number of the sprinklers were out of operation and floating debris was present in a number of areas.

The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was mostly free-flowing between lanes 22-25 – A lot better condition than previous visits. Progress has been made with this channel.

**Odour Control Unit (OCU) performance monitoring: 14/09/2021
(Results supplied by TW are ppb and need converting to ppm)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
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Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.03	0.2	Unknown
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.11 0.005	0.05	Yes
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not provided	0.8	Unknown
Thickening plant inlet	Not provided	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.031 0.028 0.018	0.5	No
Pasteurisation (OCU 12)	0.00 0.017 0.020	0.5	Yes
Transfer PS inlet	96.12 91.00 87.97	Unknown	Unknown
Transfer PS outlet	0.018 0.023 0.013	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown