



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 7th September 2021 (13:30pm)

Attendees: Mr Z Kadri (London Borough of Hounslow), Mr Andy Carrick (Thames Water) & Roxanne Denny (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was clean, empty and all hoppers 1, 2 and 3 had been drained down.

Tank 1B was mostly clean and empty however there was some dried effluent that had settled to the left hand side of the tank. All hoppers 1, 2 and 3 were less than 50% full and needed draining down completely.

Tank 2A was approx. over 60% full and filling.
Amajets were in operation. No unpleasant odours witnessed.

Tank 2B was approx. 60% full and filling.
Amajets were in operation. No unpleasant odours witnessed.

Tank 3A was empty however the majority of the surface was covered with dried crusty remanence of effluent. Hoppers 1,2 and 3 had effluent in them but all less than 50% and needed draining down.

Tank 3B was mostly empty however there was effluent at the hopper end reaching a quarter of the tank due to hoppers overflowing . Hoppers needed draining down and tank needed cleaning.

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 clean and empty. Hopper 1 was full to the brim with effluent however both Hopper 2 and 3 had less than 50% effluent in the tank. approx.

Tank 7A was mostly clear however the hoppers were overflowing and had covered 50% of the tank of effluent which was green in colour.

Tank 7B was mostly empty of effluent however the surface of the tank was covered in a light grit. The shallow hoppers 1, 2 and 3 were all full of effluent and needed draining down.

Tank 8A was clean and tidy however Hoppers 1, 2 and 3 were full of effluent and needed to be drained down.

Tank 8B was clean and tidy however Hoppers 1, 2 and 3 were full of effluent and needed to be drained down.

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 4 complaints by telephone in the preceding week.

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

1 of the complaints received were from outside of the London Borough of Hounslow.

Ref: A20338

Complaint received VIA telephone on the 31st of August at 16:30- Caller lived outside of the Borough. A letter with guidance was sent by the duty officer.

Ref: A20443

A complaint was received via online portal on the 3rd of September 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 0.011ppm.

Ref: A20504

A complaint was received via telephone on the 3rd of September 2021 at approx. 20:55 from Wayne Wright 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 0.010ppm.

Ref: A20537

A complaint was received via online portal on the 4th of September 2021 at approx. 12:20 from Harvester Close area of Isleworth. In response the complainant was contacted however the odour had subsided. Nevertheless a monitoring visit was made and odour was noticed by the officer on duty. See next complaint A20537 below for outcome.

Ref: A20538

A complaint was received via telephone on the 4th of September 2021 at approx. 16:20 from Wayne Wright Grove area of Isleworth. In response the complainant was contacted at 16:51. A monitoring visit was made and subjective assessment conducted it was evident that an odour was noticeable by the officer on duty. From measurement taken the readings demonstrated over ten readings an average of 0.008ppm. A visit was made to Mogden Sewage works at 17:55 as the Duty officer was uncontactable. Eventually the LBH officer made contact with TW duty officer who confirmed there were no spikes and agreed for a patrol of the site.

Ref: A20512

A complaint was received via online on the 4th of September 2021 at approx. 11:05 from Crofters 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 0.005ppm.

Ref: A20521

A complaint was received via online form on the 4th of September 2021 at approx. 20:11 from Ellerdine 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 was at 0.007ppm by OM3.

Ref: A20539

A complaint was received via telephone on the 5th of September 2021 at approx. 10:46 from Harvester Close area of Isleworth. The duty officer attempted to call the complainant back but was unable to get through however a voicemail was left requesting a call back. 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 was at 0.005ppm by OM3.

Ref: A20610

A complaint was received via online form on the 6th of September 2021 at approx. 21:32 from Birch Close area of Hounslow. 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 was by OM3 which increased to 0.058ppm at 20:03 and decreased at 20:48.

Ref: A20614

A complaint was received via online form on the 6th of September 2021 at approx. 21:32 from Selbourne Avenue area of Hounslow. 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 was by OM3 which increased to 0.013ppm.

Ref: A20616

A complaint was received via online form on the 7th of September 2021 at approx. 07:41 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 between 07:30-07:40 was by OM3 which increased to 0.03ppm.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 07/09/2021 at the time of the inspection are below.

Monitor 1	0.003	ppm	13:25pm
Monitor 2	0.001	ppm	13:25pm
Monitor 3	0.000	ppm	13:25pm
Monitor 4	0.000	ppm	13:25pm
Monitor 5	0.004	ppm	13:25pm
Monitor 6	0.000	ppm	13:25pm
Monitor 7	0.005	ppm	13:25pm
Monitor 8	0.000	ppm	13:25pm
Monitor 9	0.004	ppm	13:25pm
Monitor 10	0.003	ppm	13:25pm
Monitor 11	0.003	ppm	13:25pm
Monitor 12	0.003	ppm	13:25pm
Monitor 13	0.004	ppm	13:25pm
Wind Speed	0.512	mph	13:25pm
Wind Direction	72.897		13:25pm

Odour Log (Thames)

Wednesday 1st September 2021

DAY SHIFT

Temp. Cool.

Weather. Sunny with 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. 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 September 2021

DAY SHIFT

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.

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.

Friday 3rd September 2021

DAY SHIFT

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.

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 to 0.025ppm at 22:32-22:47.

Operational issues / causes observed. No odour issues found.

Actions taken. Blank.

Saturday 4th September 2021

DAY SHIFT

Temp. Warm.

Weather. Cloudy with sunny spells.

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.

Customer complaint received via LBH from Wayne Wright Grove / Harvester close area of Isleworth (west side of the works).

Operational issues / causes observed. Site inspection made no source of odour found or identified. OCU11 showed high odour spiking at 1024ppb being discharged from the stack. Chemical dosing not operational- no spikes on trends.

Actions taken. Blank.

Sunday 5th September 2021

DAY SHIFT

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.

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 with patchy cloud.

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: 05:30.

Observations / Customer Complaint.

Odour complaint from TW3 Heldmann Close at 21:30 – location to the west of the works OM3 spiked to 0.058ppm between 20:03-20:48

OM5 spiked to 0.018ppm at 20:18-20:48 & 0.021ppm at 22:03-22:19.

Operational issues / causes observed. Blank.

Actions Taken. Site inspection made no odour PAS area drains were odorous.
OCU11 discharging high odour from stack still 13.59ppb.

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: 05:00.

Observations / Customer Complaint.

OM3 spiked to 0.024 18:32-18:48.

Operational issues / causes observed. No odour source found.

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 m³					
OMP limit	500					
01/09/2021	205	885	122	1212	1112	2324
03/09/2021	39	679	595	1313	608	1921
06/09/2021	39	740	885	1664	760	2424

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 and had a low thick sludgy seal. No evidence of previous spillages. Coping stones were tidy.

Digester 9 was in service and had a low pasty sludgy seal (1/2ft from coping stones).

Digester 10 was in service and had a low wet seal. No signs of any spillages.

Digester 11 was in service and had a low thick sludgy seal. No signs of previous spillages and coping stones were clean.

Digester 12 was in service and had a low wet seal that was bubbling off minimal amounts gas. The seal was 2ft below the coping stone.

Digester 13 was in service and had a high thick pasty seal that was approx. under a 1ft below the coping stone.

Digester 14 was in service and had a low thick sludgy seal that was approx. 2ft below the coping stone.

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 was erupting 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.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a low wet seal . it was noted that the seal level was low approx. 2ft below coping stone.

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

Advised Andy Carrick 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 7th of September 2021

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: 07/09/2021
(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 0.13 0.11	0.2	Unknown
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	Not provided	Unknown	Unknown
Sludge reception outlet	Not provided	0.8	Unknown
Thickening plant inlet	0.00 0.00 0.00	Unknown	Unknown
Thickening plant outlet	0.39 0.31 0.28	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.113 0.100 0.080	0.5	Yes
Transfer PS inlet	98.00 76.06 81.09	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	Unknown	Unknown