



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 2 nd September 2021 (08:15am)	
Attendees: Mr I Inman (London Borough of Hounslow), Mr J Staines and Mr N Bristow (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 approx. 30% full, hopper 2 was >25% full and hopper 3 was approx. 25% full.</p> <p>Tank 1B was empty but had a large area of dry grit at the top end of the tank. Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 50% full, all required draining down.</p> <p>Tank 2A was returning and had less than 25% effluent remaining. Amajets 1 and 2 were non-operational, Amajet 3 was in operation.</p> <p>Tank 2B was returning and had less than 25% effluent remaining. Amajets 1 and 3 were in operation, Amajet 2 was non-operational.</p> <p>Tank 3A was empty but had dry grit across approx. 40% of the bottom end of the tanks surface. Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 25% full, all required draining down.</p>	

Tank 3B had effluent covering 50% of the tanks surface.
No Amajets were in operation.

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 empty and clean.
Hoppers 1, 2 and 3 were all completely full and contained stagnant odorous effluent, all required draining down.

Tank 6B was clean and empty.
Hopper 1 was full, hopper 2 was approx. 25% full, hopper 3 was approx. 50% full. All contained stagnant odorous effluent and required draining down.

Tank 7A had effluent covering 50% of the tanks surface.
No Amajets were in operation.
Hoppers 1, 2 and 3 were therefore all full.

Tank 7B was empty but had dry grit and crust across the entire tanks surface.
Hoppers 1, 2 and 3 (shallow hoppers) were all clogged with stagnant sludge and grit that was noticeably odorous.

Tank 8A contained inky green water across 15% of the tanks surface.
Hoppers 1, 2 and 3 were therefore all full.

Tank 8B was empty and relatively clean except for areas of dry grit at the top end of the tank.
Hoppers 1, 2 and 3 were all completely full and required draining down.

Storm Feed Channel - The level of effluent in both feed channels was low, bottomed out in some areas. It was noted that large amounts of grit and sludge was present in a number of areas along both the near and far side channels.
Odour was noticeably present in places.

Complaints

The Council received 1 complaints by telephone in the preceding week.

The Council received 7 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.

On Tuesday 24th August an on-line web complaints was received from a resident of Arnold Crescent, Isleworth at 15.39pm, logged under reference: A19989.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24th August a further on-line web complaint was received from a resident of Crofters Close, Isleworth at 15.53pm, logged under reference A19996.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24th August a further on-line web complaint was received from a resident of Kneller Gardens, Isleworth at 16.00pm, logged under reference A19992.

The historic monitoring trends around the time of the complaint showed no readings above 0.006ppm.

On Tuesday 24th August a further on-line web complaint was received from a resident of Ellerdine Road, Hounslow at 18.16pm, logged under reference A20013.

The historic monitoring trends showed 1 peak of 0.051ppm on OM3 between 18:33-18:46pm.

On Friday 27th August an on-line web complaint was received from a resident of Gould Road, Twickenham at 11:35am, logged under reference A20146.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Friday 27th August an on-line web complaint was received from a resident of Albion Road, Twickenham at 16:15pm, logged under reference A20191.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Friday 27th August an on-line web complaint was received from a resident of May Road, Twickenham at 16:27pm, logged under reference A20329.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

On Tuesday 31st August a telephone complaint was received from a resident of Chase Gardens, Twickenham at 16:30pm, logged under reference A20338.

This call was incorrectly taken by the Councils telephone operator and should not have been formally logged, as the resident is not served by the London Borough of Hounslow.

The historic monitoring trends around the time of the complaint showed no readings above 0.005ppm.

1 small peak of 0.010ppm occurred later on OM3 between 19:04-19:07pm.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 02/09/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	08:43am
Monitor 2	0.001	ppm	08:43am
Monitor 3	0.003	ppm	08:43am
Monitor 4	0.000	ppm	08:43am
Monitor 5	0.003	ppm	08:43am
Monitor 6	0.000	ppm	08:43am
Monitor 7	0.004	ppm	08:43am
Monitor 8	0.000	ppm	08:43am
Monitor 9	0.003	ppm	08:43am
Monitor 10	0.003	ppm	08:43am
Monitor 11	0.004	ppm	08:43am
Monitor 12	0.004	ppm	08:43am
Monitor 13	0.005	ppm	08:43am
Wind Speed	4.697	mph	08:43am
Wind Direction	305.031		08:43am

Odour Log (Thames)

Wednesday 25th August 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. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues, none reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Thursday 26th August 2021

DAY SHIFT

Temp. Warm.

Weather. Cloudy w/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. No odour issues, none reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 27th August 2021

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

Saturday 28th August 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. Cool.
Weather. Clear night.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. OM5 peak to 0.035ppm from 23:20-00:32, and OM5 0.021ppm from 03:03-03:32.
Operational issues / causes observed. Blank.
Actions taken. Blank.

Sunday 29th August 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. Cool.

Weather. Overcast 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 30th August 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. Cool.

Weather. Overcast 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.

Tuesday 31st August 2021

DAY SHIFT

Temp. Cool.

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. 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.

Wednesday 1st September 2021

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/patchy spells.

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.

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					
01/09/2021	205	679 885*	122	1006	1112	2118 2324*
03/09/2021	39	679	595	1313	608	1921

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.

* **Incorrect figures entered on Thames Water paperwork.**

Imported Sludge

There have been an average of 15 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

It was noted that the condition around the sludge import area was much improved and noticeably clean.

One of the two skips present was only part covered and both skips

were virtually full and giving off odour. It was also noted that general rubbish and plastics had been dumped in one of these skips.

TW were again requested to change these skips and ensure they are kept covered when being used.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection. Thames advised this unit is currently out of use due to ongoing maintenance.

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 wet seal that was bubbling off minimal amounts of gas.

Digester 7 was in service and had a partially dry seal that was bubbling off minimal amounts of gas. However, a recent spill had taken place that required cleaning.

Digester 8 was in service and had a partially dry seal that was bubbling off minimal amounts of gas.

Digester 9 had a wet seal that was very high (almost spilling) and bubbling off gas.

Digesters 10, 11 and 12 were all in service and had very wet seals that were all bubbling off gas.

Digesters 13 and 14 were both in service and had wet seals that were very high (almost spilling) and bubbling off gas.

Digester 15 was out of service.

Digester 16 was in service and had a very wet seal that was bubbling off gas.

There was evidence of a very recent spill that required cleaning.

Digester 17 was in service and had a partially dry seal that was bubbling off minimal amounts of gas.

Digesters 18 and 19 were both out of service.

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. Other than surface algae on tanks 73 and 75 no other issues were evident.

Skips

On the East side there two 14yds open skips.

One contained a quantity of general rubbish and the other contained a small amount of sodden wet rag and cloth, the skip was uncovered and the tarpaulin cover was on the floor.

Thames were again requested to remove these skips and ensure they are kept covered when in use.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin to cover it was lying on the floor.

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

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

East Side Screen House

The first set of doors to the screen house were open at the time of the inspection, TW were unable to confirm why they were open. 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 90% 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 area in the middle of the tank contained a large quantity of solid fat, algae, rag and other debris.

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 with floating debris.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 02/09/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.02 0.02	Unknown	Unknown

	0.02		
Main pumping station outlet	0.01 0.01 0.01	0.2	Unknown
East OCU	0.03 0.03 0.03	0.05	Unknown
West inlet OCU	Not working	0.05	Unknown
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.02 0.03 0.03	0.6	Unknown
New West inlet (OCU 11)	0.03 0.02 0.02	0.5	Unknown
Pasteurisation (OCU 12)	0.03 0.03 0.03	0.5	Unknown
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.02 0.02 0.03	0.6	Unknown