



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 24 August 2021 (13:00)

Attendees: Mr L Phillips (London Borough of Hounslow), Mr Dan Grady (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 had been drained to lowest point.</p> <p>Tank 1B Was empty and clean, all hoppers had been drained to lowest point.</p> <p>Tank 2A was returning during inspection. Tank had less than 25% effluent remaining all Amajets were operational.</p> <p>Tank 2B was returning during inspection. Tank had less than 25% effluent remaining. Amajets 1 and 2 were in operation, Amajet 3 was non-operational.</p> <p>Tank 3A was empty, however slight grit on the surface located at the bottom end of the tank (Hopper end). All hoppers had been drained to lowest point.</p> <p>Tank 3B Was empty clean, however all hoppers full and needed draining.</p>	

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 clean, however all hoppers full and needed draining.

Tank 6B Was empty clean, however all hoppers full and needed draining.

Tank 7A Was empty clean, however all hoppers full and needed draining.

Tank 7B was empty clean, however slight dry grit build up at the end of the tank (Hopper end). All hoppers full and needed draining no noticeable odours.

Tank 8A had a low amount of water at the end of the tank (hopper end) as a result of this all hoppers were full.

Tank 8B Was empty clean, however all hoppers full and needed draining.

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. No noticeable odours at this location during inspection.

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 24/08/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:06pm
Monitor 2	0.001	ppm	13:07pm
Monitor 3	0.000	ppm	13:07pm
Monitor 4	0.000	ppm	13:07pm
Monitor 5	0.004	ppm	13:07pm
Monitor 6	0.000	ppm	13:07pm
Monitor 7	0.003	ppm	13:07pm
Monitor 8	0.000	ppm	13:08pm
Monitor 9	0.005	ppm	13:08pm
Monitor 10	0.003	ppm	13:08pm
Monitor 11	0.000	ppm	13:08pm
Monitor 12	0.000	ppm	13:08pm
Monitor 13	0.000	ppm	13:08pm
Wind Speed	2.242	mph	
Wind Direction	46.708		

Odour Log (Thames)

Wednesday 17th 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: Warm.

Weather: Patchy rain.

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.

Thursday 18th 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: 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.

Friday 19th 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 none

reported.

Operational issues / causes observed: Blank.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Warm.

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 20th August 2021

DAY SHIFT:

Temp: Warm.

Weather: Cloudy W/ Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complain: No odour issues none 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.

Sunday 21st August 2021

DAY SHIFT:

Temp: Warm.

Weather: Rain W/ Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues none

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.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Monday 22nd August 2021

DAY SHIFT:

Temp: Warm.

Weather: Rain W/ Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues none 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.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Tuesday 23rd 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.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Wednesday 24th August 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny.

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.

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					
18/08/2021	0	1091	885	1976	912	2888
20/08/2021	0	1236	1030	2266	912	3178
23/08/2021	88	1678	824	2590	304	2894

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 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.

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 had a weak sloppy seal. No evidence of spill.

Digester 7 was in service had a weak sloppy seal. No evidence of spill.

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

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

Digester 10 was in service had a weak sloppy seal bubbling off. However no evidence of spill.

Digester 11 was in service had a weak sloppy seal bubbling off. However no evidence of spill.

Digester 12 was in service had a weak sloppy seal bubbling off. However no evidence of spill.

Digester 13 was in service had a weak sloppy seal bubbling off. However no evidence of spill.

Digester 14 was in service and had weak sloppy seal level was very high (almost spilling) and bubbling gassing off .

Digester 15 was out of service.

Digester 16 was in service had a weak sloppy seal. No evidence of spill.

Digester 17 was in service had a weak sloppy seal. No evidence of spill.

Digester 18 was out of service.

Digester 19 was 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 x2 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 was hanging off skip on the ground.

1 x 40yds closed bulk carrier that was empty and 1 x 20yds open bulk carrier that was full of grit. This skip was uncovered and the tarpaulin was hanging off the skip.

On the West side there was 1 x 20yds open bulk carrier that was empty.

East Side Screen House

The first set of doors to the screen house were closed 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 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: 18/08/2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.06	Unknown	Unknown
	0.05		
	0.06		
Main pumping station outlet	0.01	0.2	Unknown

	0.01 0.01		
East OCU	0.04 0.04 0.04	0.05	Unknown
West inlet OCU	0.00 0.00 0.00	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	0.00 0.00 0.00	0.6	Unknown
New West inlet (OCU 11)	0.02 0.02 0.02	0.5	Unknown
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Unknown
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Unknown