



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 3 rd August 2021 (14:00pm)	
Attendees: Mr I Inman and Mrs V Wallas (London Borough of Hounslow), Mr D Grady and Ms D Gillespie (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. 25% full, hopper 2 was >10% full and hopper 3 was approx. 15% full.</p> <p>Tank 1B was empty but had green algae at the top end of the tank. Hopper 1 and 3 were both approx. 30% full, hopper 2 was approx. 10% full, all required draining down.</p> <p>Tank 2A was empty but had wet grit across approx. 50% of the tanks surface at the hopper end and was noticeably odorous. Hopper 1 was approx. 35% full, hopper 2 was approx. 25% full and hopper 3 was approx. 15% full, all required draining down.</p> <p>Tank 2B was empty and had a large area of dry grit along the left hand side of the tank. Hoppers 1 and 3 were both approx. 45% full, hopper 2 was approx. 20% full, all required draining down.</p> <p>Tank 3A was empty but had wet sludge along half of the right hand side of the tank.</p>	

Hopper 1 was 50% full, hoppers 2 and 3 were both approx. 25% full, all required draining down.

Tank 3B was empty but had dry grit in the middle section of the tank. Hoppers 1, 2 and 3 were all completely full and required draining down.

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. Hopper 1 was approx. 90% full and hoppers 2 and 3 were both approx. 80% full, all required draining down.

Tank 6B was clean and empty. Hopper 1 was full, hopper 2 was approx. 60% full, hopper 3 was approx. 80% full, all required draining down.

Tank 7A was in use and being returned (being approx. 10% full). Amajets 1 and 2 were in operation.

Tank 7B had recently been returned and was dirty and odorous with sludge and grit across the tanks surface. Hoppers 1, 2 and 3 (shallow hoppers) were all clogged with sludge and grit.

Tank 8A contained inky green water across 50% of the tanks surface. Hoppers 1, 2 and 3 were therefore all full.

Tank 8B contained inky green water across 50% of the tanks surface. Hoppers 1, 2 and 3 were therefore all full.

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 was present in a number of areas of both the near and far side channel.

Complaints

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

The Council received 3 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.

On Tuesday 27th July an on-line web complaints was received from a resident of Pulteney Close, Isleworth at 0.33am, logged under reference: A18582.

The historic monitoring trends around the time of the complaint was as follows:

On 26/07/2021 OM5 spiked from 22:18pm-23:33pm to levels of between 0.009ppm and 0.007ppm. A short spike occurred at 00:47am on 27/07/2021 of 0.010ppm and one further short spike occurred at 02.03am of 0.015ppm.

On Tuesday 27th July an on-line web complaint was received from a resident of Wotton House, St Johns Road, Isleworth at 18:39pm, logged under reference A19632.

The historic monitoring trends around the time of the complaints were as follows:

Only OM5 had several low spikes of 0.004ppm-0.006ppm between 16:17pm-17:47pm.

On Tuesday 3rd August an on-line web complaints was received from a resident of Whitton Dene, Isleworth at 9:43am, logged under reference A18906.

The historic monitoring trends around the time of the complaints were as follows:

Only OM10 showed two low level spikes of 0.004ppm between 09:20am-09:33am and 0.005ppm between 00:08am-11:20am.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 03/08/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	14:53pm
Monitor 2	0.001	ppm	14:53pm
Monitor 3	0.000	ppm	14:53pm
Monitor 4	0.000	ppm	14:53pm
Monitor 5	0.000	ppm	14:53pm
Monitor 6	0.000	ppm	14:53pm
Monitor 7	0.000	ppm	14:53pm
Monitor 8	0.000	ppm	14:53pm
Monitor 9	0.000	ppm	14:53pm
Monitor 10	0.003	ppm	14:53pm
Monitor 11	0.000	ppm	14:53pm
Monitor 12	0.000	ppm	14:53pm
Monitor 13	0.000	ppm	14:53pm
Wind Speed	0.365	mph	14:53pm
Wind Direction	79.751		14:53pm

Odour Log (Thames)

Wednesday 28th July 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.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

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 29th July 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.

Friday 30th July 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. Rain.

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 31st July 2021

DAY SHIFT

Temp. Cool.

Weather. Rain 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. Patchy rain.

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 1st August 2021

DAY SHIFT

Temp. Cool.

Weather. Rain with 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. Warm.

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 2nd August 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. Warm.

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 3rd 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 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.	
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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					
30/07/2021	0	946	1030	1976	760	2736
02/08/2021	0	946	885	1831	760	2591

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 open 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.

Digesters 6, 7 and 8 were all in service and had a very wet seals that were all bubbling off gas.

Digester 9 was in service and had a reasonably dry seal that was crusty in places.

Digester 10 was in service and had a very wet seal that was bubbling off gas.

Digester 11 was in service and had a fairly dry seal that was bubbling off minimal amounts of gas.

Digesters 12, 13 and 14 were all in service and had very wet seals (virtually no seal) and all were 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 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 (virtually no 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 being loaded with grit at the time of the inspection.

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 doors at both ends of 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 8 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, but the tanks surface area appeared improved and movement was clearly visible.

Several of the sprinklers were out of operation and floating debris was present in a number 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:

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	Not provided	0.2	Unknown
East OCU	Not provided	0.05	Unknown
West inlet OCU	Not provided	0.05	Unknown
Sludge reception inlet	Not provided	Unknown	Unknown
Sludge reception outlet	Not	0.8	Unknown

	provided		
Thickening plant inlet	Not provided	Unknown	Unknown
Thickening plant outlet	Not provided	0.6	Unknown
New West inlet (OCU 11)	Not provided	0.5	Unknown
Pasteurisation (OCU 12)	Not provided	0.5	Unknown
Transfer PS inlet	Not provided	Unknown	Unknown
Transfer PS outlet	Not provided	0.6	Unknown

OCU data was not provided on submission of the weekly inspection paperwork and despite several requests Thames had still not provided the data by 13/08/2021.