



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 28 th April 2021 (13:00pm)	
Attendees: Mr L Phillips (London Borough of Hounslow) and Mr Tom Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A - Tank was clean and empty slight grit at (hopper end of tank). - All hoppers had been drained down to lowest point.</p> <p>Tank 1B - Tank was empty clean of effluent however had a slight sludgy surface toward the river end of the tank (hopper end). All three hoppers were drained to lowest point.</p> <p>Tank 2A - Tank was empty clean. Hoppers 1 and 3 were drained to lowest point, however hopper 2 needed draining down.</p> <p>Tank 2B - Was empty clean slight grit build up at the end of tank (Hopper end) all Hoppers drained down to lowest point.</p> <p>Tank 3A - Tanker over pumping hoppers during inspection.</p> <p>Tank 3B - Tank was empty clean however all hoppers full and needed draining down.</p> <p>Tanks 4A, 4B, 5A & 5B - All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	

Tank 6A - Tank was clean and clear of effluent however Hoppers 1, 2 and 3 were over 50 % full of effluent- Hoppers needed draining down.

Tank 6B - Tank was mostly covered with a dry gritty surface and all Hoppers needed cleaning out and draining down.

Tank 7A - Tank had thick grit across the tank surface needs cleaning. All hoppers need draining (Shallow hoppers).

Tank 7B - Tank had thick grit across the tank surface needs cleaning. All hoppers need draining (Shallow hoppers).

Tank 8A - Half of the tank surface was covered with full of effluent backing up from the hopper end of the tank. All hoppers full and require draining.

Tank 8B - Half of the tank surface was covered with full of effluent backing up from the hopper end of the tank. All hoppers full and require draining.

Storm Feed Channel - The level of effluent in the feed channels was approx. 10% in depth along its entire length and was a murky and black shade / colour – No fatty deposits floating on surface.

There were no observation of malodour at this locality of the works.

Complaints

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

The Council directly received no complaints by email in the preceding week.

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 28/04/2021 at the time of the inspection are below.

Monitor 1	0.003	ppm	13:18pm
Monitor 2	-	-	-
Monitor 3	0.004	ppm	13:18pm
Monitor 4	0.000	ppm	13:18pm
Monitor 5	0.004	ppm	13:18pm
Monitor 6	0.000	ppm	13:18pm
Monitor 7	0.004	ppm	13:18pm
Monitor 8	0.003	ppm	13:18pm
Monitor 9	0.003	ppm	13:18pm
Monitor 10	0.000	ppm	13:18pm
Monitor 11	0.000	ppm	13:18pm
Monitor 12	0.000	ppm	13:18pm
Monitor 13	0.000	ppm	13:18pm
Wind Speed	0.406	mph	13:18pm
Wind Direction	86.259		13:18pm

Odour Log (Thames)

Wednesday 21st April 2021

DAY SHIFT:

Temp: Warm.

Weather: Cloudy/ W sunny spells .

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: Two spikes from OM10 up to 0.021 for less than 15 mins.

Operational issues / causes observed: Blank.

Actions taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night .
Odour Readings: All Odour monitors are in operation except OM2 which had a Faults.
Time: 07:30.
Observations / Customer Complaint: No odour issues found or reported.
Operational issues / causes observed: Blank.
Actions taken: Blank.

Thursday 22nd April 2021

DAY SHIFT :

Temp: Cool.

Weather: Sunny.

Odour Readings: All Odour monitors are in operation / No faults.

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 Odour monitors are in operation except OM2 which had a Faults.

Time: 07:30.

Observations / Customer Complaint: No odour issues found or reported.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Friday 23rd April 2021

DAY SHIFT

Temp: Warm.

Weather: Sunny.

Odour Readings: All Odour monitors are in operation / No faults

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 Odour monitors are in operation / No faults.

Time: 05:30.

Observations / customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Saturday 24th April 2021

DAY SHIFT:

Temp: Cool.

Weather: Sunny.

Odour Readings: All Odour monitors are in operation / No faults.

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 Odour monitors are in operation / No faults

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions taken: Blank.

Sunday 25th April 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny.

Odour Readings: All Odour monitors are in operation / No faults.

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 Odour monitors are in operation / No faults.
Time: 05:30.
Observations / Customer Complaint: No odour issues.
Operational issues / causes observed: Blank.
Actions taken: Blank.

Monday 26th April 2021

DAY SHIFT:

Temp. Hot.

Weather. Sunny.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint:

Customer complaint received from south of site (Whitton Road) at approximately 13:30.

Operational issues / causes observed: Site checked carried out. Nothing out of the ordinary to report and no spikes on trends.

Actions Taken: Roxanne Denny made aware of customer contact.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Action taken: Blank.

Tuesday 27th April 2021

DAY SHIFT:

Temp: Warm.

Weather: Sunny.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 17:30.

Observations / Customer Complaint: Customer complaint received from Mogden Lane approx. 15:30.

Operational issues / causes observed: OM8 spiked @13:30 and peaked at 0.013ppm 15 mins no other issues on site.

Actions taken: Blank

NIGHT SHIFT:

Temp: Cool.

Weather: Clear Night.

Odour Readings: All Odour monitors are in operation / No Faults.

Time: 05:30.

Observations / Customer Complaint: OM10 showing odours all shift.

Operational issues / causes observed: Digester area checked 7 and 16 levels topped up trying to stop seals leaking.

Actions taken: Burner set points 26 start 24 stop.

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					
21/04/2021	0	206	2530	2736	3239	5975
23/04/2021	0	1199	2530	3729	3050	6779
26/04/2021	0	1387	2343	3730	3378	7108*

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 date noted 26/10/21, should note 26/04/2021.

Imported Sludge

There has been an average of 0 import of sludge per day.

No.5 Pumping Station

The doors of No.5 pumping station were closed at the time of the inspection.

Sludge Import Area

The sludge import area was clean & tidy. No odours detected at time of inspection. TW advised they are frequently hosing this area down.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of inspection.

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 in service and had a low thick seal all the way around the digester – there were no signs of a previous spillage on coping stones but the walkways around the digester had historic gritty surface that needed cleaning. The depth of the seal was under 2ft.

Digester 6 - was in service and had a low thick seal approx. 2ft below coping stones. Good thick seal all around. The walkway around the digesters were gritty / crusty needed cleaning.

Digester 7 - was in service and had a low thick seal approx. 3ft below coping stones.

Digester 8 - was in service and had a low thick sludgy seal approx. 2ft below coping stones. Good thick seal all around.

Digester 9 - was in service and had a very high wet bubbly seal that was 1ft below the coping stones. Gassing in places but no sign of previous spillage – coping stones were tidy.

Digesters 10 & 11 were both in service and had good thick seals that were bubbling off minimal amounts of gas.

Digester 12 - was in service and had a thick seal all round that was bubbling off minimal amounts of gas. The sludge level was approx. 4ft below the coping stone.

Digester 13 - was in service and had a very thick sludgy seal that was at the same level as the coping. No previous spillage noticed- coping stones were clean

Digester 14 - was in service and had a thin wet seal approx. 2ft below coping stones. There were signs of previous spillage.

Digester 15 - was out of service.

Digester 16 - was in service and had a good thick seal. There were signs of previous spillage. Level of sludge was high approx. 1ft below coping stone in some places higher.

Digester 17 - was in service and had a wet seal that was approx. 4ft below coping stones.

Digesters 18 - was out of service.

Digesters 19 - was out of service

Digester 20 was in service and had a low thick seal approx. 2ft below coping stones. Good thick seal all around.

The walkways around the lower end of the Digesters 5 - 10 had dried gritty surfaces possibly from previous historic spillages that needed to be cleaned and maintained. TW advised.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

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/sprinklers were in operation at the time of the inspection. Surfaces were mostly clear and free of any build-up of

fatty/mossy deposits. The water hoses/sprinklers were breaking up any remainder residue across the surface.

Skips

1x large open grit skip (full) – covered with tarpaulin.

1x 8 yard grit/rag skip (full) - covered with tarpaulin.

No other skips observed on site.

East Side Screen House

The middle set of blue screen house doors were open at the time of the inspection no contractors working at site at time of inspection. Advised TW these doors must remain closed.

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 nearest the road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it (No change from previous visit on 23rd March 2021).

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.
TW advised no concerns or issues. No noticeable odours at time of inspection.

PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Circular PST 12 has been drained down and is currently out of service.

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 appeared to be free flowing with the internal dividing walls being visible again in some areas. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and a lot of floating of debris was noticeable (rag and a number of floating discarded face masks).

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 22.

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: 27th April 2021

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	NO DATA	Unknown	Unknown

Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	37.98 35.73 33.46	0.05	YES
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	NO DATA	Unknown	Unknown
Sludge reception outlet	NO DATA	0.8	Unknown
Thickening plant inlet	NO DATA	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	YES
Pasteurisation (OCU 12)	1.113 1.019 1.013	0.5	YES
Transfer PS inlet	1.237 1.201 1.109	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes

GBT Plant OCU outlet	0.00 0.00 0.00 Ave:0.00	Unknown	Unknown
----------------------	----------------------------------	---------	---------