



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 8 th June 2021 (08:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (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, hoppers 2 and 3 were both approx. 25%. All required draining down or over-pumping.</p> <p>Tank 1B was empty and clean. Hoppers 1 and 3 were both approx. 30% full, hopper 2 was approx. 25% full. All required draining down or over-pumping</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all >25% full.</p> <p>Tank 2B was empty and clean. Hoppers 1 and 2 were both approx. >25% full, hopper 3 was approx. 30% full. All required draining down or over-pumping.</p> <p>Tank 3A was empty but had dry crusty grit along the right hand side of the tank. Hoppers 1 and 2 were both approx. 30% full, hopper 3 was approx. 25% full. All required draining down or over-pumping.</p>	

Tank 3B was empty and clean.

Hoppers 1, 2 and 3 were all completely full and required draining down or over-pumping.

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, 2 and 3 were all approx 70% full. All required draining down or over-pumping.

Tank 6B was empty and clean.

Hopper 1 was full, hopper 2 was approx. 30% full, hopper 3 was approx. 50% full. All required draining down or over-pumping.

Tank 7A was clean but had water flowing into it from the hoppers.

Hoppers-1, 2 and 3 (shallow hoppers) were all full (and overflowing into the tank) and required attention.

Tank 7B was clean but had water flowing into it from the hoppers.

Hoppers-1, 2 and 3 (shallow hoppers) were all full (and overflowing into the tank) and required attention.

Tank 8A was clean but had water flowing into it from the hoppers.

Hoppers 1, 2 and 3 were all full and overflowing into the tank. All required draining down or over-pumping.

Tank 8B was empty but had dry grit at the top end of the tank.

Hoppers 1, 2 and 3 were all full and overflowing into the tank. All hoppers required draining down or over-pumping.

Storm Feed Channel - The level of effluent in both feed channels was very low along their entire lengths (almost bottomed out). However, large amounts of grit and solid matter was present which required flushing.

Thames were advised by the inspecting officer that the current standard of the storm tanks was not acceptable. Works were urgently required to clean the tanks and over-pump or drain down the hoppers.

Complaints

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

The Council received 4 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 1st June the Council received an on-line web complaint at 22:28pm from a resident of Dean Road, Hounslow (logged under ref: A15914).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

On 2nd June the Council received an on-line web complaint at 21:50pm from a resident of Borough Road, Isleworth (logged under ref: A15959).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data. However, due to the location of this complainant and distance to the site, it is thought that this complaint has been logged in error and stems from a localised odour problem.

On 7th June the Council received an on-line web complaint at 21:58pm from a resident of Tolson Road, Isleworth (logged under ref: A16223).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

On 7th June the Council received an on-line web complaint at 23:17pm from a resident of St Johns Road, Isleworth (logged under ref: A16224).

Unfortunately the historic monitor trends were not available to view at the time of the inspection to review the OM data.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 08/06/2021 at the time of the inspection are below.

Monitor 1	0.000	ppm	07:50am
Monitor 2	0.000	ppm	07:50am
Monitor 3	0.000	ppm	07:50am
Monitor 4	0.000	ppm	07:50am
Monitor 5	0.000	ppm	07:50am
Monitor 6	0.000	ppm	07:50am
Monitor 7	0.000	ppm	07:50am
Monitor 8	0.000	ppm	07:50am
Monitor 9	0.005	ppm	07:50am
Monitor 10	0.000	ppm	07:50am
Monitor 11	0.000	ppm	07:50am
Monitor 12	0.003	ppm	07:50am
Monitor 13	0.003	ppm	07:50am
Wind Speed	0.208	mph	07:50am
Wind Direction	326.393		07:50am

Odour Log (Thames)

Wednesday 2nd June 2021

DAY SHIFT

Temp. Hot.

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. Overcast 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 3rd June 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 problems.
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, none reported.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Friday 4th June 2021

DAY SHIFT
Temp. Cool.
Weather. Rain.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No problems.

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 problems.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Saturday 5th June 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. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM5 0.016, 02:54-03:09.

Operational issues / causes observed. Blank

Actions taken. Blank.

Sunday 6th June 2021

DAY SHIFT

Temp. Hot.

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. 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 7th June 2021**DAY SHIFT**

Temp. Hot.

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.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Tuesday 8th June 2021**DAY SHIFT**

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM9 12:39-12:51-0.019ppm.

Odour complaint received at 13:30 from Weavers Close.

Operational issues / causes observed. Waste burner failed to start in auto. Odour generated from high digester bell heights.

East inlet odour from skips.

Actions taken. ICA called out to investigate control issues with burner.

Skip area washed down.

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.

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					
02/06/2021	0	1297	1116	2413	1720	4133
04/06/2021	0	1152	740	1892	1392	3284
07/06/2021	0	862	885	1747	1720	3467

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 has been no imports of sludge in the preceding week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection due to ongoing maintenance.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably clean. However, one of the two skips present was not covered (cover was on the floor next to the skip), and the skip was over 25% full and giving off odour

TW were 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 the 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.

Digesters 5 and 6 were both in service and had low wet seals that were both bubbling off gas minimal amounts of gas.

Digesters 7, 8 and 9 were all in service. All had high bells and were all bubbling heavy and spitting on one side.

Digesters 10, 11 and 12 were all in service. All had low wet seals that were bubbling off minimal amounts of gas.

Digesters 13 and 14 were both in service. All had very wet high seals that were bubbling off minimal amounts of gas.

Digester 15 was out of service.

Digester 16 was in service and the bell height was high. The digester was spitting and bubbling and beginning to spill on one side.

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 also being applied

manually to all operational 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. Other than surface algae on tank 74 and 78 that was covering less approx. 25% of the tanks surface, no other issues were evident.

Skips

On the East side there two 14yds open skips. One contained only general waste and the other was covered with a tarpaulin.

Also present was one 40yds closed bulk carrier that was empty and one 20yds open bulk carrier that contained grit (approx. 30%) and was part-covered with a tarpaulin.

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were covered with tarpaulins.

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 of the screen house was open at the time of the inspection. 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 approx. 70% of its length, there were visibly crusty areas and a significant number of weeds were growing out of it.

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 other than PST 10 (fat was present in front of the sweep arm).
No other issues were evident with these tanks.

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 and other floating debris.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7 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 and little surface movement was visible. Thick fluffy scum covered virtually the entire surface area of all lanes and the dividing walls were barely visible.

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 clogged (including floating debris) along at least 50% of its length (noticeably between lane 25 and 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.

Combi-pactor 13 is currently being replaced and out of service, works were ongoing at the time of the inspection.

Odour Control Unit (OCU) performance monitoring: 08/06/2021

Additional notes:
 OCU 12
 Sodium Hydroxide 1.3% re-order
 Sodium Hypochlorite 50.2%

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not provided	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	18.77 16.15 15.01	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	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes