



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** 27<sup>th</sup> February 2024

**Attendees:** Mr Steven Maunders and Mrs Lorien Kelly (London Borough of Hounslow) and Ms Chantelle Dixon (Thames Water)

#### LB Hounslow Observation

#### Thames Water Action / Response

#### Storm Water Storage Tanks (SWST)

**Tank 1A** – Tank empty and flushed clean – significant sections of weed growth remaining. All Hoppers approx. 95% full – large fat deposits on surface - Requires flushing and draining/over-pumping.

**Tank 1B** – Tank empty – Approx. 90% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – Hopper 1 drained down and Hoppers 2 & 3 approx. 10% full - Requires flushing and draining/over-pumping.

**Tank 2A** – Tank empty – Approx. 80% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers approx. 10% full – large fat deposits on surface - Requires flushing and draining/over-pumping.

**Tank 2B** – Tank empty – 100% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers approx. 30% full – large fat deposits on surface - Requires flushing and draining/over-pumping.

**Tank 3A** – Tank in use and being returned – All Amajets in use.

**Tank 3B** – Tank in use and being returned – One Amajet operating (far).

**Tanks 4A, 4B, 5A & 5B** which are covered, and odour controlled, were all in use - unable to gauge condition as lighting system still not working.

**Tank 6A** – Tank recently returned - 100% remains covered with grit and sludge – requires further flushing. All Hoppers approx. 60% full – large fat deposits on surface - Requires draining/over-pumping.

**Tank 6B** – Tank empty – Approx. 40% of tank covered by grit and sludge - with significant weed growth – requires further flushing – All Hoppers approx. 30% full – large fat deposits on surface - Requires flushing and draining/over-pumping.

**Tank 7A** – Tank in use – All Amajets operating.

**Tank 7B** – Tank in use – All Amajets operating.

**Tank 8A** – Tank in use – All Amajets operating.

**Tank 8B** – Tank recently returned - 100% remains covered with grit and sludge – requires further flushing. All Hoppers approx. 90% full – large fat deposits on surface - Requires draining/over-pumping.

**Feed Channel** - The level of effluent in both feed channels was approximately 10% capacity – significant sludge and grit deposits along channel requires hosing.

**Sludge Dip Records**

<b>Date</b>	<b>West PSTs 1</b>	<b>West PSTs 2</b>	<b>West PSTs 3</b>	<b>West Total</b>	<b>East PSTs</b>	<b>Grand Total</b>
	<b>All units in m<sup>3</sup></b>					
<b>OMP limit</b>	<b>500</b>					
21/02/24	78	2755	412	3245	1568	4813 (TW figure 4818)
23/02/24	59	2254 (TW figur 2253)	412	2725	1896	4621 (TW figure 4620)
26/02/24	0	2943	412	3355	1088	4443

### Odour Monitors

The SCADA system was down t the time of Inspection and therefore it was not possible to view odour readouts (H<sub>2</sub>S) for monitors:

Monitor 1		ppm	11:40
Monitor 2		ppm	11:40
Monitor 3		ppm	11:40
Monitor 4		ppm	11:40
Monitor 5		ppm	11:40
Monitor 6		ppm	11:40
Monitor 7		ppm	11:40
Monitor 8		ppm	11:40
Monitor 9		ppm	11:40
Monitor 10		ppm	11:40
Monitor 11		ppm	11:40
Monitor 12		ppm	11:40
Monitor 13		ppm	11:40
Wind Speed		mph	
Wind Direction			

## **Complaints**

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

Thames Water controller advised that they had received no direct complaints in the preceding week.

The Council received one complaint by email/online in the preceding week:

24/02/24 (12:28) from Sussex Avenue, TW7 6LB.

The Council received one complaint by phone (daytime) in the preceding week:

27/02/24 (09:18) from Mogden Lane, TW7 7LE – callback made – odour subsided – Resident reported increased odour during preceding evening and over night.

The Council received no calls to the out of hours service.

It was not possible to review trace data as SCADA system was not available at time of Inspection. Subjective assessment in vicinity to TW7 7LE pre and post Inspection did not detect odour.

**Odour Log (Thames):**

**Wednesday 21<sup>st</sup> February 2024:**

**AM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** “No odour issues found or reported.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Thursday 22<sup>nd</sup> February 2024:**

**AM** – Cool Rain.

All OMU's in use.

**Observations/Complaints:** “No odour issues found or reported.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Friday 23<sup>rd</sup> February 2024:**

**AM** – Cool – Drizzle.

All OMU's in use.

**Observations/Complaints:** “No odour issues found or reported.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cold – Drizzle.

All OMU's in use.

**Observations/Complaints:** “No odour issues.”

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Saturday 24<sup>th</sup> February 2024:**

**AM** – Cool – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cold – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Sunday 25<sup>th</sup> February 2024:**

**AM** – Cool – Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Rain.



All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Monday 26<sup>th</sup> February 2024:**

**AM** – Cool – Patchy Rain.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cold – Clear Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**Tuesday 27<sup>th</sup> February 2024:**

**AM** – Cool – Cloudy with Sunny Spells.

All OMU's in use.

**Observations/Complaints:** "OM5 0.016 15:33-15:47."

**Operational Issues/Causes:** No data.

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "No odour issues found or reported."

**Operational Issues/Causes:** No data.

**Actions:** No data.

## Digesters

**Digesters 1-4** – Out of use (permanent).

**Digester 5** – In use – seal level approx. 2ft below coping stones – Seal weak and bubbling.

**Digester 6** - In use – seal level approx. 2ft below coping stones – Good Seal.

**Digester 7** - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling – Tank bubbling vigorously and ongoing spill requiring clean-up and anti-foam - Bell height high requiring draw down of Biogas.

**Digester 8** - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling – Old spill requiring clean-up and anti-foam.

**Digester 9** - In use – seal level approx. 18” below coping stones – Seal weak and bubbling.

**Digester 10** - In use – seal level approx. 3ft below coping stones – Seal weak and bubbling – Old spill requiring clean-up and anti-foam.

**Digester 11** - In use – seal level approx. 2ft below coping stones – Good Seal. \*Tank has faulty fan which is causing noise nuisance – requires repair/replacement.

**Digester 12** - In use – seal level approx. 2ft below coping stones – Seal weak and bubbling.

**Digester 13** – Out of use.

**Digester 14** – Out of use.

**Digester 15** – In use – seal level approx. 18” below coping stones – Seal weak and bubbling – Bell height high requiring draw down of Biogas.

**Digester 16** – Out of use.

**Digester 17** - In use – seal level approx. 2ft below coping stones – Seal weak and bubbling. \*Tank has faulty fan which is causing noise nuisance – requires repair/replacement.

**Digester 18**- In use – seal level approx. 2ft below coping stones – Seal weak and bubbling.

**Digester 19** - In use – seal level approx. 3ft below coping stones – Seal weak and bubbling.

**Digester 20** - Out of use.

## **GENERAL**

### **Sludge Screening House**

All doors open at time of inspection – Contractors on-site replacing screens. TW confirmed that doors now closed when contractors not on site. New Odour Suppression Unit deployed to area outside roller-shutters doors and in use.

### **Imported Sludge**

1863m<sup>3</sup> in preceding seven days.

### **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – currently hoses being used to break up sludge blanket on tank 76 & 78.

### **East Side Raw Sludge Screen House**

Doors closed at time of inspection.

### **West Side Aeration Lanes (Old)**

Battery C aeration feed channel 100% obstructed in one channel (left) – partially cleared from previous Inspections – but still areas of complete coverage remain – requires jetting (TW advise that there is continuing flow below surface).

### **West side primary settlement tanks (PST)**

Circular PST's 9, 10 & 11 in use. Number 12 drained down (long term out of service).

Ton Bag of solidified fat removed from Tanks left in Service Road requires removal.

Rectangular PSTs – no issues

**New Works (West Side) Battery E**

Inlet lane and chambers clear.

**Pasteurisation Plant**

Streams 2, 3 and 4 out of service.

**Skips**

2x small (blue) skips – rear of sludge screen house one empty one containing general waste – quantity of rag on ground in surrounding area that requires clean-up.

1x open container grit skip (uncovered) half full and 1x 10-Yard Rag skip (covered) half full - at rear of Sludge Screening House. New 2x smaller covered skips being trialled currently to replace open grit skip – able to utilise with smaller “Bobcat”.

1x 10-Yard enclosed General Waste skip in Service Road opposite East Raw Sludge Screening House.

1x 10-Yard enclosed General Waste skip in Service Road by East Side Raw Sludge Screening House.

**Odour Control Unit (OCU) performance monitoring – 26/02/24:**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.124 0.000 0.000	0.2	No
East OCU	0.017 0.017 0.015	0.05	Yes
West inlet OCU	0.000 0.000 0.000	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	0.027 0.026 0.025	0.6	Yes
Transfer PS inlet	0.290 0.286 0.274	Unknown	Unknown
Transfer PS outlet	0.595 0.596 0.586	0.5	No
New West inlet (OCU11)	0.009 0.009 0.008	0.5	Yes
Pasteurisation Plant (OCU12)	0.504 0.488 0.475	0.5	Yes*
GBT Plant OCU Outlet	0.003 0.003 0.003	Unknown	Unknown