



# London Borough of Hounslow

## Mogden Sewage Treatment Works

### TW Site Inspection

**Date of inspection:** 9<sup>th</sup> November 2023

**Attendees:** Mr Steven Maunders (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. 80% full - Requires flushing and draining/over-pumping.

**Tank 1B** – Tank empty – Approx. 80% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers approx. 30% full - Requires flushing and draining/over-pumping.

**Tank 2A** – Tank empty – Approx. 10% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers approx. 40% full - Requires flushing and draining/over-pumping.

**Tank 2B** – Tank empty – Approx. 50% of tank covered by grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers approx. 50% full - Requires draining/over-pumping.

**Tank 3A** – Tank empty – Approx 60% of tank covered by grit and sludge – requires flushing. All Hoppers approx. 50% full - Requires draining/over-pumping.

**Tank 3B** — Tank in use – recently returned - approx 60% remains covered – requires further flushing and draining/over-pumping.

**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 empty and flushed clean. All Hoppers approx. 40% full - Requires flushing and draining/over-pumping.

**Tank 6B** – Tank empty – Approx. 20% of tank covered by grit and sludge - with significant weed growth – requires further flushing – All Hoppers approx. 40% full.

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

**Tank 7B** – Tank recently returned - 100% of tank covered with thick layer of grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers full with heavy sludge deposits – requires flushing.

**Tank 8A** – Tank recently returned - 75% of tank covered with thick layer of grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers full with heavy sludge deposits – requires flushing.

**Tank 8B** – Tank recently returned - 100% of tank covered with thick layer of grit and sludge – with significant sections of weed growth – requires flushing – All Hoppers full with heavy sludge deposits – requires flushing.

**Feed Channel** - The level of effluent in both feed channels was approximately 25% capacity.

**Sludge Dip Records**

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
06/11/23	40	2006	679	2725	1416	4141

**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 no complaints by email/online in the preceding week.

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

### **Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection:

Monitor 1	000	ppm	14:45
Monitor 2	001	ppm	14:45
Monitor 3	003	ppm	14:45
Monitor 4	000	ppm	14:45
Monitor 5	000	ppm	14:45
Monitor 6	004	ppm	14:45
Monitor 7	000	ppm	14:45
Monitor 8	005	ppm	14:45
Monitor 9	000	ppm	14:45
Monitor 10	004	ppm	14:45
Monitor 11	000	ppm	14:45
Monitor 12	003	ppm	14:45
Monitor 13	000	ppm	14:45
Wind Speed	0.2	mph	14:45
Wind Direction	230°		14:45

**Odour Log (Thames):**

**Wednesday 1<sup>st</sup> November 2023:**

**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 found or reported."

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

**Actions:** No data.

**Thursday 2<sup>nd</sup> November 2023:**

**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 found or reported.”

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

**Actions:** No data.

**Friday 3<sup>rd</sup> November 2023:**

**AM** – Cold – Rainy with Sunny Spells.

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Clear Night.

All OMU's in use.

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

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

**Actions:** No data.

**Saturday 4th November 2023:**

**AM** – Cool – Patchy Rain.

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Patchy Rain.

All OMU's in use.

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

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

**Actions:** No data.

**Sunday 5<sup>th</sup> November 2023:**

**AM** – Cool – Sunny with Patchy Clouds.

All OMU's in use.

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

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

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked at 00:55 - 01:50 max 0.015ppm."

**Operational Issues/Causes:** "Main Drive manhole cover venting."

**Actions:** No data.

**Monday 6<sup>th</sup> November 2023:**

**AM** – Cool - Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM5 0.019ppm 06:53 – 07:09 & 0.019ppm 08:23 – 08:38. OM8 0.018ppm 11:47 – 12:02."

**Operational Issues/Causes:** "Site checked. No issues identified".

**Actions:** No data.

**PM** – Cool – Overcast Night.

All OMU's in use.

**Observations/Complaints:** "OM5 spiked at 01:53 – 02:09 max 0.018ppm."

**Operational Issues/Causes:** "Main Drive manhole venting."

**Actions:** No data.



**Tuesday 7<sup>th</sup> November 2023:**

**AM** – Cool - Cloudy.

All OMU's in use.

**Observations/Complaints:** "OM5 0.015ppm 09:23 – 09:38."

**Operational Issues/Causes:** "Main Drive manhole venting."

**Actions:** No data.

**PM** – Cold – Clear Night.

All OMU's in use.

**Observations/Complaints:** "OM5 all shift max 0.020."

**Operational Issues/Causes:** "Main Drive manhole venting."

**Actions:** No data.

## Digesters

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

**Digester 5\*** – In use – seal level approx. 6” below coping stones – Good Seal - Bell height high requiring draw down of Biogas.

**Digester 6** - In use – seal level approx. 1ft below coping stones – Good Seal - Bell height high requiring draw down of Biogas. Evidence of recent spill requiring clean-up and anti-foam.

**Digester 7** - In use – seal level approx. 1ft below coping stones – Good seal - Bell height high requiring draw down of Biogas. Ongoing spill requiring clean-up and anti-foam.

**Digester 8** - In use – seal level approx. 1ft below coping stones – Good Seal – Bell height high requiring draw down of Biogas.

**Digester 9** - In use – seal level approx. 2ft below coping stones – Good Seal.

**Digester 10** - In use – seal level approx. 1ft below coping stones - Seal weak and bubbling – Tank noticeably gassing off - Bell height high requiring draw down of Biogas.

**Digester 11** - In use – seal level approx. 1ft below coping stones – Seal weak and bubbling.

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

**Digester 13** – Out of use.

**Digester 14** – Out of use.

**Digester 15** – Being brought back into service – seal level approx. 3ft 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. 18” below coping stones – Good Seal.

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

**Digester 19** - In use – seal level approx. 2ft below coping stones – Seal weak and bubbling. Evidence of recent spill requiring clean-up and anti-foam.

**Digester 20\*** - In use – seal level approx. 18” below coping stones – Good Seal.

\* = Digesters shown on Weekly “Cover Sheet” as out of service – however observed in use during Inspection.

## **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**

1738m<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 75.

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

All 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)**

Rectangular PSTs – no issues

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

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

Inlet lane and chambers clear.

**Pasteurisation Plant**

Streams 1, 3, 7, 8 and 12 out of service.

**Skips**

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

1x open container grit skip (uncovered) empty and 1x 10-Yard Rag skip (covered) full - at rear of Sludge Screening House.

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 between Aeration lanes 12 & 13.

**Odour Control Unit (OCU) performance monitoring – 07/11/23:**

<b>Plant</b>	<b>Reading (ppm)</b>	<b>Action Level (ppm)</b>	<b>Compliant</b>
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.110 0.110 0.110	0.2	Yes
East OCU	0.024 0.024 0.029	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	0.000 0.000 0.000	0.6	Yes
Transfer PS inlet	0.226 0.226 0.226	Unknown	Unknown
Transfer PS outlet	0.000 0.000 0.000	0.5	Yes
New West inlet (OCU11)	0.023 0.023 0.023	0.5	Yes
Pasteurisation Plant (OCU12)	0.094 0.094 0.094	0.5	Yes
GBT Plant OCU Outlet	0.298 0.298 0.298	Unknown	Unknown