### Mogden Sewage Treatment Works

### TW Site Inspection

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| **Date of inspection:**  6th December 2022 | |
| **Attendees:** Mr L. Phillips (L.B. Hounslow) and Miss Emma McDonald (Thames Water) | |
| **LB Hounslow Observation** | **Thames Water Action / Response** |
| **Storm Water Storage Tanks (SWST)**  **Tank 1A** – Tank empty clean. However, all hoopers full and require draining.    **Tank 1B** – Tank empty around 20% of tank covered in grit and sludge. Tank needs further flushing. All hoppers full and require draining.  **Tank 2A** – Tank empty flushed clean. All hoppers full and require draining.  **Tank 2B** – Tank empty around 35% of grit and sludge in tank. Tank needs further flushing. All hoppers full and need draining.  **Tank 3A** – Tank empty around 45% of tank covered in grit tank needs further flushing. Hoppers 1 and 2 were full and required draining hopper 3 drained to lowest point.  **Tank 3B** – Tank backfilling around 60% of Tank and all Hoppers covered – requires draining. Around 20% of remainder of tank covered by sludge and requires further flushing.  **Tanks 4A, 4B, 5A & 5B** are covered, and odour controlled, were all in use - unable to measure condition as lighting system still not working.  **Tank 6A** – Tank empty around 30% of tank covered in grit and needs further flushing. All hoppers full and require draining.  **Tank 6B** – Tank empty around 30% of tank covered in grit and tank requires further flushing. All hoppers full and require draining.  **Tank 7A** – Tank backfilling around 50% of Tank and all Hoppers covered – requires draining. Remainder of Tank clean.  **Tank 7B** – Tank backfilling around 50% of Tank and all Hoppers covered – requires draining. Remainder of Tank clean.  **Tank 8A** – Tank backfilling around 60% of Tank and all Hoppers covered – requires draining. Remainder of Tank clean.  **Tank 8B** – Tank backfilling around 40% of Tank and all Hoppers covered tank requires draining. Remainder of tank completely covered by grit and sludge – requires further flushing.  **Feed Channel** - The level of effluent in both feed channels was approximately 30% capacity. Sludge Dip Records  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Date** | **West**  **PSTs 1** | **West**  **PSTs**  **2** | **West**  **PSTs**  **3** | **West**  **Total** | **East PSTs** | **Grand Total** | | **All units in m3** | | | | | | | **OMP limit** | **500** |  |  | | | | | 30/11/2022 | 0 | 389 | 412 | 801 | 1753 | 2554 | | 02/12/2022 | 59 | 1068 | 412 | 1539 | 1753 | 3292 | | 5/12/2022 | 0 | 862 | 412 | 1274 | 1568 | 2842 | |  |
| **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 directly received no complaints by email in the preceding week.  **Odour Monitors**  The odour readouts (H2S) for all monitors which were providing data at time of inspection:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Monitor 1 | 0.000 | ppm |  | 12:34 | | Monitor 2 | 0.002 | ppm |  | 12:34 | | Monitor 3 | 0.005 | ppm |  | 12:34 | | Monitor 4 | 0.005 | ppm |  | 12:34 | | Monitor 5 | 0.000 | ppm |  | 12:34 | | Monitor 6 | 0.004 | ppm |  | 12:34 | | Monitor 7 | 0.004 | ppm |  | 12:34 | | Monitor 8 | 0.006 | ppm |  | 12:34 | | Monitor 9 | 0.008 | ppm |  | 12:34 | | Monitor 10 | 0.006 | ppm |  | 12:34 | | Monitor 11 | 0.005 | ppm |  | 12:34 | | Monitor 12 | 0.004 | ppm |  | 12:34 | | Monitor 13 | 0.000 | ppm |  | 12:34 | | Wind Speed | 6.369 | mph |  | 12:34 | | Wind Direction | 7.044 |  |  | 12:34 | |  |
| **Odour Log (Thames):**  **Wednesday 30th November 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Cloudy.  **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.** Cold.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank.  **Actions Taken.** Blank.  **Thursday 1st December 2022**  **DAY SHIFT**  **Temp.** Cold.  **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.** Cold.  **Weather.** Clear night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank  **Actions Taken.** Blank.  **Friday 2nd December 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Cloudy 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.** Cold.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank.  **Actions taken.** Blank.  **Saturday 3rd December 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Sunny W/ 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.** Cold.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank.  **Actions taken.** Blank.  **Sunday 4th December 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Cloudy.  **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.** Cold.  **Weather.** Patchy rain.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 spiked at 20:45 – 21:30 max 0.033ppm and 00:30 – 00:46 max 0.022ppm.  **Operational issues / causes observed.**  OCU11 not performing.  **Actions Taken.** Blank.  **Monday 5th December 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  OM10 0.016ppm 06:56 – 07:10  0.018ppm 08:10 – 08:40  OM3 0.024ppm 16:02 – 16:17.  **Operational issues / causes observed.**  Area checked nothing out of the ordinary found. OCU11 performance poor.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cold.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 spiked multiply times between 18:45- 04:00 max 0.034ppm.  **Operational issues / causes observed.**  Area in vicinity of monitor checked no obvious source of odour. OCU11 out put performance.  **Actions Taken.** Blank.  **Tuesday 6th December 2022**  **DAY SHIFT**  **Temp.** Cold.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  OM8 0.017 ppm less than 15 mins  OM3 0.028 ppm 16:48 - 17:32  **Operational issues / causes observed.**  OCU11 poor performance poor.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cold.  **Weather.** Clear night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 0.029 19:16 -19:32  OM4 0.016 23:40- 23:55  **Operational issues / causes observed.**  OCU11 poor performance.  **Actions Taken.** Blank. |  |
| **Digesters**  **Digesters 1-4** – Out of use (permanent).  **Digester 5** – Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 6** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 7** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 8** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 9** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 10** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 11** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 12** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 13** - In use – seal level approx. 2ft below coping stones - Seal good.  **Digester 14** – Out of use.  **Digester 15** – Out of use.  **Digester 16** – Out of use.  **Digester 17** - Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 18** – Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 19** – Was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 20** - Was in service and had a weak sloppy seal. There was no sign of recent spillage. |  |
| **GENERAL**  **Sludge Screening House**  1x (pedestrian) door open at time of inspection. Roller shutter currently missing and awaiting replacement following damage – opening has been screened temporarily.  **Imported Sludge**  Total of 69 Imports 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) – no issues. Tanks 71 & 73 currently out of service and undergoing complete overhaul – Contractors on site.  **East Side Raw Sludge Screen House**  Doors open at time of inspection, contractors working  **West Side Aeration Lanes (Old)**  Battery C aeration feed channel 100% obstructed in one channel (left) – 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 – no issues. Number 12 drained down.  **New Works (West Side) Battery E**  No issues.  **Pasteurisation Plant**  Streams 1, 2, 6, 10 and 11 out of service.  **Skips**  2x small (blue) skips – rear of sludge screen house both empty.  1x open container grit skip (empty) uncovered (tarpaulin pulled back) and 1x 10-Yard Rag skip (covered) at rear of Sludge Screening House.  1x open 8-Yard skip (scrap metal) in Service Road by Pasteurisation Plant.  1x 8-Yard skips – Rag (covered) by Sludge Area.  1x 10-Yard enclosed General Waste skip in Service Road at rear of East Raw Sludge Screening House.  1x open container General Waste skip in Service Road at rear of Pasteurisation Plant.  2 x grit skips uncovered by entrance to Digester Area. |  |

**Odour Control Unit (OCU) performance monitoring: 07/11/2022**

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| **Plant** | **Reading (ppm)** | **Action Level (ppm)** | **Compliant** |
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| Main pumping station inlet | Not provided | Unknown | Unknown |
| Main pumping station outlet | 0.025ppm  0.018ppm  0.013ppm | 0.2 | Unknown |
| East OCU | 0.043ppm  0.041ppm  0.039ppm | 0.05 | Yes |
| West inlet | 0.00ppm  0.00ppm  0.00ppm | 0.05 | Yes |
| Sludge reception inlet | Not provided | Unknown | Unknown |
| Sludge reception outlet | Not provided | 0.8 | Unknown |
| Thickening plant inlet | Not provided | Unknown | Unknown |
| Thickening plant outlet | 0.674ppm  0.684ppm  0.774ppm | 0.6 | Yes |
| New West inlet (OCU 11) | 0.091ppm  0.089ppm  0.087ppm | 0.5 | No |
| Pasteurization (OCU 12) | 1.240ppm  1.885ppm  1.991pm | 0.5 | Yes |
| Transfer PS inlet | 1.37ppm  1.39ppm  1.40ppm | Unknown | Unknown |
| Transfer PS outlet | 0.00ppm  0.00ppm  0.00ppm | 0.6 | Yes |
| GBT Plant OCU Outlet | 0.00ppm  0.00ppm  0.00ppm | Unknown | Unknown |