



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 nd June 2017	
Attendees: Mr A Devine (L B Hounslow) & Mr D Kalamantis (Thames Water).	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A had a small amount of dried grit and sludge near the hoppers. Hoppers 1, 2 & 3 were all approximately 1/3 full and require over pumping</p> <p>Tank 1B was empty & clean. All hoppers had been drained to lowest level.</p> <p>Tank 2A was empty & clean. Hoppers 1 and 3 had a build-up of scum on the surface of the water in the hoppers.</p> <p>Tank 2B was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping.</p> <p>Tank 3A was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping.</p> <p>Tank 3B was empty & clean. Hopper 1 was full, hopper 2 was approximately half 3 and hopper 3 was drained to a low level. Hoppers 1 and 2 require further over pumping</p> <p>Tanks 4A, 4B, 5A & 5B are covered and odour controlled.</p> <p>Tank 6A was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping. A scum was noted on the surface of hoppers 1 and 2 and was noted to be locally slightly odorous</p>	

Tank 6B was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping.

Tank 7A was empty & clean. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 7B was empty but had large areas of dry silt/grit at the top end of the tank. Hoppers 1, 2 & 3 (shallow hoppers) were all drained down.

Tank 8A was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping.

Tank 8B was empty & clean. Hoppers 1, 2 and 3 were approximately 1/3 full and require further over pumping.

Storm Water Channel

The storm feed channel serving STW's 1A to 4B has a small amount of water at the base. The feed channel serving STW's 5A-8B was empty of effluent along its entire length.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at the time of inspection (approximately 13:40).

Monitor 1	0.000	ppm
Monitor 2	0.000	ppm
Monitor 3	-0.000	ppm
Monitor 4	0.000	ppm
Monitor 5	0.000	ppm
Monitor 6	0.000	ppm
Monitor 7	0.005	ppm
Monitor 8	0.003	ppm
Monitor 9	0.000	ppm
Monitor 10	0.004	ppm
Monitor 11	0.000	ppm
Monitor 12	0.000	ppm
Monitor 13	0.000	ppm

Complaints

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

The Council received two complaints via e-mail in the preceding week.

On 15th June 2017 at 13:55 an e-mail was received from a resident of College Road, Isleworth located to the north of the site complaining of the smell at 02:00am that morning. The email stated “smell from Mogden horrendous and clearly done at this time to avoid people noticing”. During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 3 recorded spikes of 0.015ppm between 01:40 to 01:53. Odour monitor 3 is located to the west of the site. The inlet works are the part of the works closest to College Road, however odour monitor 2 did not record any spikes during the time of the complaint. The Storm water tanks logs recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping and there were no spills recorded on the digester records. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On 19th June 2017 at 20:39 an e-mail was received from a resident of Ellerdine Road, Isleworth located to the west of the site stating “Mogden smell around Ellerdine Road at around 8:30pm”. During the inspection the odour trends were inspected for the time of the complaint. No trends showed values above the threshold limits. The digesters are the part of the works closest to Ellerdine Road. There were no spills recorded on the digester records for both the AM and PM shift. The Storm water tanks logs for both the AM and PM shift recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping with the exception of tank 3B. The odour log for both the AM and the PM shift recorded no odour issues on site. The digesters are part of the works close to Ellerdine Road and the digester log for the PM shift taken at 19.30 showed that the condition of the seals was satisfactory, there was no spillage of sludge via the annular seals of the digesters and the pressure relief valves were not releasing gas. It has not been possible on this occasion to identify the source of odour complained of by the

resident.

The Council received eight complaints via MRAG in the preceding week.

On 19th June 2017 at 12:57 an e-mail was received from MRAG. The original email was sent on the 5th June 2017 at 13:51 from a resident of Weavers Close, Isleworth located to the north of the site stating “Odour problem over the weekend and today in Weavers Close and down Worton Road”. During the inspection the odour trends were inspected for the time of the complaint. Unfortunately no data was available on the electronic system. The inlet works and storm tanks are part of the works closest to Weavers Close. The storm tanks are part of the works closest to Eve Road. The Storm water tanks logs recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping. The digester records for the 5th June recorded that there were no spills, with the exception of Digester 15. The odour log for both the AM and PM shifts on the 5th June recorded no odour issues and nothing of note on trends. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On 19th June 2017 at 12:59 an e-mail was received from MRAG. The original email was sent on the 6th June 2017 at 22:05 from a resident. The resident did not give their address. The email stated “Over the last few weeks the smell is high especially near Tesco Twickenham”. During the inspection the odour trends were inspected for the time of the complaint. Unfortunately no data was available on the electronic system. The Storm water tanks logs recorded that all the storm tanks were in use at the time of the complaint. The digester records for the 6th June recorded that there were no spills. The odour log for the AM shift on the 6th recorded that there was no odour issues sludge spill underbridge pasteurisation hose down area. The odour log for the PM shift recorded that the trends showing no odour spikes. Day works out to clean up sludge in PAS area. It is possible that this was the source of odour complained of by the resident on this occasion

On 19th June 2017 at 13:01 an e-mail was received from MRAG. The original email was sent on the 6th June 2017 at 22:55 from a resident of Eve Road, Isleworth located to the east of the site stating “Disgusting smell since rain today on Eve Road and surrounds”. During the inspection

the odour trends were inspected for the time of the complaint. Unfortunately no data was available on the electronic system. The storm tanks are part of the works closest to Eve Road. The Storm water tanks logs recorded that all the storm tanks were in use at the time of the complaint. The digester records for the 6th June recorded that there were no spills. The odour log for the AM shift on the 6th recorded that there was no odour issues sludge spill underbridge pasteurisation hose down area. The odour log for the PM shift recorded that the trends showing no odour spikes. Day works out to clean up sludge in PAS area. It is possible that this was the source of odour complained of by the resident on this occasion

On 19th June 2017 at 13:05 an e-mail was received from MRAG. The original email was sent on the 7th June 2017 at 09:02 from a resident of Whitton Dene, Isleworth located to the south west of the site stating "Really bad raw sewage stench over the last few days". During the inspection the odour trends were inspected for the time of the complaint. Unfortunately no data was available on the electronic system. The digesters are part of the works closest to Whitton Dene. The digester records for the 7th June recorded that there were no spills. The Storm water tanks logs recorded that tanks 3A to 8B were in use at the time of the complaint. The odour log for the AM shift on the 7th June recorded no odour issues and nothing of note on trends. The odour log for the PM shift on the 7th June recorded one spike on monitor 3 for 15 minutes area checked and all ok. *P.S.T 10 pumping out. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On 19th June 2017 at 13:09 an e-mail was received from MRAG. The original email was sent on the 7th June 2017 at 09:49 from a resident of Arnold Crescent, Isleworth located to the south west of the site stating "The stench from Mogden has been absolutely disgusting over the last few weeks". During the inspection the odour trends were inspected for the time of the complaint. Unfortunately no data was available on the electronic system. The digesters are part of the works closest to Arnold Crescent. The digester records for the 7th June recorded that there were no spills. The Storm water tanks logs recorded that tanks 3A to 8B were in use at the time of the complaint. The odour log for the AM shift on the 7th June recorded no odour issues and nothing of note on trends. The odour log for the PM shift on the 7th June recorded one

spike on monitor 3 for 15 minutes area checked and all ok. *P.S.T 10 pumping out. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On 19th June 2017 at 13:20 an e-mail was received from MRAG. The original email was sent on the 17th June 2017 at 05:22 from a resident of Arnold Crescent, Isleworth located to the south west of the site stating that “at 01.15 the whole area around Mogden and the entirety of Arnold Crescent absolutely reeks”. During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 1 to 13 did not record any spikes over the threshold at the time of the complaint. The digesters are part of the works closest to Arnold Crescent. The digester records for the 16th and 17th recorded that there were no spills. The Storm water tanks logs recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping, with the exception of tank 3B which required over pumping on the 17th June. The odour log for the PM shift on the 16th June recorded no odour issues and nothing of note on trends. The odour log for the AM shift on the 17th recorded that there were no odour issues on site but that a complaint was received. Thames Water flushed the storm channel and was down around E battery inlet skips. It has not been possible on this occasion to identify the source of odour complained of by the resident.

On 19th June 2017 at 13:24 an e-mail was received from MRAG. The original email was sent on the 17th June 2017 at 17:15 from a resident of Queens Terrace, Isleworth located to the east of the site stating “Pretty nasty smell of sewage at the moment”. During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 1 to 13 did not record any spikes over the threshold at the time of the complaint. The digesters are part of the works closest to Arnold Crescent. The digester records for the 17th recorded that there were no spills. The Storm water tanks logs recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping, with the exception of tank 3B which required over pumping. The odour log for the AM shift on the 17th recorded that there were no odour issues on site but that a complaint was received. Thames Water flushed the storm channel and was down around E battery inlet skips.

The PM shift recorded that odour monitor 2 spiked twice but both less than 10 minutes each time. The storm channel may have been the source of the complaint by the resident on this occasion.

On 19th June 2017 at 13:38 an e-mail was received from MRAG. The original email was sent on the 18th June 2017 at 19:09 from a resident of Weavers Close, Isleworth located to the north of the site stating "The odour has been disgusting this weekend. I am now sitting in my flat in sweltering heat with all the doors and windows open as I have no other option and the smell is sickening". During the inspection the odour trends were inspected for the time of the complaint. Odour monitor 1 to 13 did not record any spikes over the threshold at the time of the complaint. The inlet works and storm tanks are part of the works closest to Weavers Close. The Storm water tanks logs recorded none of the uncovered storm tanks were in use and none of the tanks required flushing. The log also showed that none of the hoppers to these tanks required over pumping, with the exception of tank 3B which required over pumping. The digester records for the 18th recorded that there were no spills, with the exception of the PM record which identify a spill from digester 15. The odour log for the AM shift on the 18th recorded that there were no odour issues and no spikes on trends. The PM shift recorded that odour monitor 10 spiked once to 0.024ppm but less than 15 minutes. It has not been possible on this occasion to identify the source of odour complained of by the resident.

Odour Log (Thames) - Photocopies of log entries taken:

Thursday 15th June 2017

AM No odour issues on site.

PM odour monitor 3 – Multiple spikes. OCU 11 working ok. No other issues on site

Friday 16th June 2017

AM Odour monitor 3 – three spikes Max 0.025ppm. Area investigated, no odour detected. Spikes under 15 minutes.

PM No odour issues. Nothing of note on trends.

Saturday 17th June 2017

AM No odour issues on site. Customer contact odour complaint – see odour investigation form.

Actions Taken – Storm channel flushed. Jerry washed down round E battery inlet skips.

PM odour monitor 2 spiked twice but both less than 10 minutes each time.

Actions Taken – Odour patrols by PC and Tech 1 during shift.

Sunday 18th of June 2017

AM No odour issues. No spikes on trends.

PM Odour monitor 10 spiked once to 0.024ppm but less than 15 minutes (02:00am).

Monday 19th of June 2017

AM No odour issues spikes on trends. No odour issues on site

PM No odour spike. Nothing to report on site.

Tuesday 20th June 2017

AM No odour spikes.

PM No spikes on trends. No odour issues.

Wednesday 21st June 2017

AM No odour spikes. No odour problems

PM Odour monitor 10 – one spike 0.016ppm from 23:30 to 00:30. Investigated area. No odour detected. OCU's on site running. Digester bell heights low.

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					
16/06/17	0	1091	0	1091	5245	6336
19/06/17	88	945	0	1033	5914	6947
21/06/17	0	1048	0	1054	5574	6622

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 within three days.

Imported Sludge

There have been 70 imports of sludge over the last week, each import containing 30m³ of sludge.

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 are permanently out of use.

Digester 5 was in use and had a good dry seal.

Digester 6 was in use and had a good dry seal.

Digester 7 was in use and had a good dry seal.

Digester 8 was in use and had a good dry seal.

Digester 9 was in use and had a good dry seal.

Digester 10 was in use and had a good dry seal.

Digester 11 was in use and had a good dry seal.

Digester 12 was in use and had a good dry seal.

Digester 13 is currently out of use.

Digester 14 was in use and had a good dry seal.

Digester 15 was in use and had a good dry seal.

Digester 16 is currently out of use.

Digester 17 was in use and had a good dry seal.

Digester 18 was in use and had a good dry seal.

Digester 19 is currently out of service.

Digester 20 was in use and had a good dry seal.

Automatic dosing of anti-foaming agent is now in use and TW advised that this is also applied manually at least twice a day to all operational digesters. Thames Water advised that immediate remedial action would be taken with regard to digester 7.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along the three quarters of its length with thick dry sludge at the time of the inspection. Thames advised a tanker is cleaning this out on a weekly basis.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.

Circular PSTs 9, 11 & 12 were all in operation at the time of the inspection. PST 10 is currently out of service and drained down. Hoses were spraying into PT 10 at the time of the inspection.

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).

At the time of the inspection all 8 tanks were in operation and appeared to be working fine. Tanks 77 and 78 had a build-up of green algae on the surface.

East Side Screen House

The screen house now has new doors fitted, both pairs of which were closed at the time of the inspection.

Thames confirmed all screens were in operation.

Skips

On the East side there was 1 open low level bulk carrier on site that was empty and no odour was present.

On the West side there was one 6yd skip that was covered and used for general waste and one bulk container.

A 6yd skip which was covered was also present outside the pasteurisation plant

Pasteurisation Plant

The pasteurisation plant was in service at the time of the inspection. TW confirmed nine of the 12 streams were operating at the time of the inspection.

Section 106 agreement

There have been no breaches of the s106 agreement in the last week.

West Side Aeration Lanes (Old)

No issues appeared to be evident.

New Works (West Side)

The mixed liquor feed channel serving aeration lanes 21-25 (E Battery) was clogged with rag & debris along more than half its length. This had a scum on the surface and was noted to be locally slightly odorous

The surface of the tanks appeared much improved and was visibly flowing again.

The sprinkler system for the aeration lanes should be in permanent use but a number of sprinklers were not working properly at the time of the inspection, being clogged with pondweed.

Thames confirmed that tanker crews are cleaning the mixed feed liquor channel out on a weekly basis.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring – 21/06/2017

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station outlet	0.004(av)	0.2	Yes
East OCU	0.030(av)	0.05	Yes
West inlet	0.000(av)	0.05	Yes
Sludge reception outlet	0.003(av)	0.8	Yes
Thickening plant outlet	0.000(av)	0.6	Yes
Pasteurisation plant outlet (OCU 12)	0.000(av)	0.5	Yes
Transfer PS outlet	0.000(av)	0.6	Yes
New West OCU 11 outlet	0.006(av)	0.6	Yes

Jerome reading

