



Little Marlow Sewage Treatment Works Liaison Committee minutes

Minutes of the meeting of the Little Marlow Sewage Treatment Works Liaison Committee held on Friday 14 October 2022 in Via Video Conference, commencing at 11.00 am and concluding at 12.15 pm.

Members present

D Watson and J Downes

Others in attendance

K Fisher, L Bee, S Kershaw, J Morley and A Scott

Apologies

M Overall

Agenda Item

1 Apologies

Apologies for absence were received from Mike Overall.

2 Minutes of the previous meeting

The Minutes of the last meeting were agreed as a correct record.

3 Update from Thames Water

Andrew Scott from Thames Water provided the following update.

Site performance

- Samples were taken in house on a regular basis for various quality parameters. The three graphs showed slightly different quality parameters to reflect site treatment. The first graph showed suspended solids and biochemical oxygen demand (this was important because it showed organic load and how much oxygen would be used up in the river). The higher BOD the worst impact on the river. Organic particulates could be turned into sludge and could generate green energy so it should not escape into the watercourse.
- The second graph showed ammonia. Portable equipment was used including vials and daily samples were taken and sent away for analysis. It was well below the limits. In response to a question about who set the limits it was noted that these

were permitted consents and they were below the level registering any concerns. There was also a phosphorous consent which related to the number of phosphates going into the river. The flight path was trending upwards through the year and this related to the availability of ferrate sulphate (iron based salts used for precipitation). This helped coagulate or settle out the solids that the phosphorous was associated with.

- On the whole the Works were performing well. There had been no compliance failures. All preventative maintenance was up to date and there was a stable site team. There had been a restructure but the site performance manager had not changed and the key people within the team.
- A question was asked whether they were continuous measurements or a point in time. It was noted that in the main they were a point in time. On the first graph there was a turbidity reading which was continuous. Continuous readings were used for trending purposes as they were not as accurate as taking spot samples.

Spills

- This was part of an ongoing investigation water company wide by the Environment Agency. The Event Duration Monitor which triggered the environment spill from storm tanks was only fitted at a certain time which showed the start of the graph. There were three levels. The first one was rainfall in the catchment to justify whether there had been a storm. A more sophisticated tool was being developed such as the Discharge Alert Management Tool. Another measure was the final affluent flow but this was not as good as the past forward flow so this could not be used to determine whether the full flow treatment had been met. It was representative of what the flow was at the back end. There was flow data which was sent to High Wycombe as part of the compensation flow.
- The first graph showed the rainfall, the middle graph was the EDM meter and the bottom graph showed the outflow.
- On the Event Duration Monitor anything above the red dash line showed that it would have impacted the environment. Further analysis could be undertaken on how those spills occurred. There could be some dry day infiltration which would not be linked to rainfall. The storm tank should fill within 24-48 hours depending on the size of the catchment. On some sites that suffer with infiltration if there was a wet winter once the ground water levels get high that could cause more flow into the works. It was important to stop surface water getting into the network.
- Water can get through via the storm drainage pipes and also through infiltration. In a combined system (surface and foul water) there could be several ways infiltration could occur; misconnections (where water would not go to a soakaway), inundation such as flooded catchments where a road was flooded and underneath there could be a sewer manhole – these were not water tight and could get into the network and another way was that the ground water level was only 1.2 metres below the surface but there was a height differential where the pipe sat and the ground water level which could create a head of pressure on the pipes and any small leaks if the pressure was high enough would force water into the drains. This was calculated as part of the dry weather flow and how the works should be operating on a normal day – an infiltration factor was used to

understand the network. Those two wet winters helped demonstrate issues with infiltration and certain catchments had been set up with Ground Water Impacted System Management Plans. It was important to stop any infiltration in the first place rather than building capacity in the pipes. The wet weather conditions were needed to find out where those leaks were e.g in Witney £10 mill was being invested to upgrade the sewage works; there was 55km of sewer that discharge into Witney at a cost of £90 mill which would take 10 years to fix. A short term fix was to increase capacity at the sewage works.

- Little Marlow was not a high spillage works; January 2020 was an exceptionally wet period and there were steady high flows; once storm tanks were full this could mean it discharged into the environment. However, because of the amount of water it was very dilute. It would be important to take a sample at this time to check it was dilute. In February 2021 the settlement tank was out of service. There was one spike this year but this was erroneous data – some of the monitors were sensitive to things like cobwebs etc. so it was important to sense check data.
- In terms of the final settlement tank it looked like in total there was 49.7 hours where the storm tanks were discharged which needed to be avoided in the future. There was a storm event in the summer of last year; it would go high as part of the storm event then be returned over a period of days as the flows died down.
- Little Marlow had large storm tanks and did not spill very often apart from the catastrophic event referred to above. The Event Duration Monitor showed that it had triggered an event and for how long. The final effluent was a different reading to the storm event. **That information could be sought through an Environmental Information Request which should be sent to the enquiries team.** A Member commented that it was important to understand the environmental consequences when a catastrophe occurred such as the river water quality data. During that event an external company OHES had undertaken some river water monitoring to track the impact on the water upstream and downstream. It indicated elevated values above the norm but not above effluent of concern in terms of pollution. This would be looked at as part of an investigation by the Environment Agency. This was currently being investigated and therefore the results could not be disclosed. If there were any enforcement issues a case would be presented in court. If an EIR was made the EA legal team could review what could be released currently. If an investigation was not going to court then the information could be provided.

AMP

AMP 8 would start in 2024. There were a number of funding streams and projects and also the top 13 pollution sites. It was important to build in more settlement on site which could involve pouring concrete; estimates were in the region of £14 million although costs had gone up 25% since then across the board with labour and materials so it could be up to £20 mill. The project would not start until AMP 8 although it would be good to get the design work completed by then. However, there were other projects that could help such as a replacement chemical dosing system which would help treatment and use less chemicals. The set up at the

moment included a lot of maintenance time with manual intervention and this system which would free up time on other operations. The other project was on the sludge stream and getting equipment replaced which was a £1 mill project which would start soon which would improve the liquor return so when the organic solids were de-watered into a cake which would be transported to Oxford or Basingstoke for treatment, the liquid that came off that was of a certain quality and would mean a reduced load with less ammonia and BOD. This would help resilience.

Drainage and Waste Water Management Plans

This was the plan that would drive some of the large investment into the catchment and part of the Strategy related to the unwanted flows and the egress and ground water. The investment would be wrapped under this DWMP and they would look at data on population including planning development. Similar stakeholders were asking information about this area including the River Thames group, Windrush group and West Oxfordshire District Council. **A response could be sent out about how Thames Water calculated population growth if required.**

Environment Act

There was a lot of liaison between Water UK and the regulator and certain aspects had been looked at such as the phosphorous removal which would mean 119 sites would need to be upgraded which would mean a 10 year process in terms of strategic investment. The AMP 8 programme was sitting at £1.3 billion which would mean £100 on every residents' bill. Engagement was needed as part of this process to look at cost benefit analysis. There should be more river water quality monitoring. There were point source discharges to monitor up and down stream with 700 metres being put in across Thames Water sites at £100,000 per metre. This would have an impact on the way that the Executive Team and shareholders would operate.

During discussion the following points were noted:

- Thames Water had applied for connection to the local substation in order to deploy a solar farm on site. Thames Water were looking to have a solar farm on site which was part of the ventures company which was a non-regulated subsidy of Thames Water. They would not rent out solar land which Thames Water required at a later date.
- AMP 8 was targeted to end at 2030. The next programme had not been developed yet. As this was a deferred project to concentrate on regulatory outputs and because of its complexity the design should be completed by the end of this AMP.
- Reference was made to single points of failure to implement critical equipment diagnostics to give early warning of equipment failure. Thames Water were being proactive with some CBM work such as oil and temperature checks. They were looking at increasing the amount of Condition Based Monitoring. **An update could be given on this area.** The Asset Management Team were going through a full review of all sites called Compliance First including an asset review. Any single point of failure would be built into the investment plan going forward. **Once the**

scope of this project had been drafted this could be shared with the Committee.

- Previously a pump set had been hired from Holland which had been used to overpump from the interstage and would ensure that settled sewage bypasses biochemical treatment to blend at the back end. Thames Water were looking at purchasing the same system which could be used in emergencies. This equipment would not be turned on without permission from the Environment Agency.
- The supply issue had not been resolved. During the pandemic there was a shortage of tanker drivers but there continued to be a shortage of chemicals which were linked to hydrochloric acid which was needed for chlorine based chemicals. This impacted water and waste water and water treatment took priority. Thames Water liaised with the Environment Agency on this.

Action: Thames Water

4 Update from the Environment Agency

Lucy Bee and Daniel Ophof provided the following update on behalf of the Environment Agency.

The Environment Agency was still investigating the Little Marlow Sewage Treatment Works incident so they were currently unable to report on that but would update the Committee once the investigation had been finalised. Lucy Bee reported that they had a programme of updating permits for sewage treatment works. The permit for Little Marlow had not been issued yet and some of the permit conditions would be more stringent but it was complicated around compensation flow issues. A timeframe could not be put on when the investigation would be finalised as it depended on what evidence was found.

On top of the local investigation there was a national investigation which was started earlier in the year which was looking at water companies across England and it wasn't clear yet whether Little Marlow would be included in that national investigation. This was initiated due to public interest in storm overflows.

A question was asked about where residents could report any concerns and also how they would be notified if an event occurred. **There was a 24/7 hotline for the reporting of any incidents which could be provided to the Committee including an enquiry email address.** There was no methodology to inform residents when there were incidents apart from serious events where affected stakeholders would be notified e.g. Thames Water, local sailing club and this Committee. However, there were no notifications about routine incidents. With regard to the incident that was under investigation there would have been a notification released. **A representative commented that the Parish Council had not been informed and should be added to the list of stakeholders notified of incidents.** The notification should be undertaken as soon as possible after the incident occurred to inform river users. If there were any serious threat stakeholders like the sailing club would be contacted. **A representative asked if there was a procedure for this and the Environment Agency said that they would check this. He also suggested that if there was no procedure one should be written.** Lucy Bee reported that there could be pollution incidents that they were not aware of. If Thames Water were aware of any incidents

they should be contacting stakeholders to inform them.

The representative from Thames Water reported that if there was an incident there was a process that was followed. Key stakeholders would be informed and vulnerable residents. Different communication techniques would be used according to who was being informed e.g. text alerts, a message board on the website or direct telephone calls. Going forward the EDRM trigger data for this AMP period could pick up information every one or two minutes (for AMP 6 the trigger data was not highly sophisticated and only picked up data every 15 mins). By the end of December Thames Water would enable website access so the public could view this information including discharge points and if there had been a spill. Historical data would be more difficult.

There were six sites such as Witney, Port Meadow Oxford and Cassington which fed into the River Thames through their subsidiaries and there was a text alert system so if they were 'storming' from those sites local customers on the database would be informed. This was not an automatic system and was quite onerous so would not be duplicated elsewhere.

Action: Environment Agency

5 Action Log

The Action Log would be updated and circulated.

6 Questions

There were no questions.

7 Date of next meeting

A further meeting would be arranged in March.