



This form will report compliance with your permit as determined by an Environment Agency officer

Site	LITTLE MARLOW STW (WOOBURNVALLEY), LITTLE MARLOW STW (WOOBURNVALLE, Y), BUCKS, -	Permit Ref	CNTD.0058		
Operator/ Permit holder	THAMES WATER UTILITIES LIMITED.				
Date	19/07/2023	Time in	10:00	Out	13:23
What parts of the permit were assessed	Wastewater Treatment Works / STW settled storm sewage, Wastewater Treatment Works secondary treated sewage effluent				
Assessment Type	Site inspection: Wastewater Treatment Works - Operator Self Monitoring (OSM)	EPR Activity:	Water Discharge		
Recipient's name/position	CAR form Inbox				
Officer's name	Jackie Outhwaite	Date issued	02/08/2023		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details which conditions we have assessed, where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). For more details of our CCS scheme, contact your [local office](#).

KEY: C1, C2, C3, C4 = CCS breach category A = Assessed (no evidence of non-compliance)

Activities and Permit Conditions Assessed	CCS Category	Condition(s) breached
1 - Wastewater Treatment Works secondary treated sewage effluent		
1.1b. WRA Works operation (c2)	A	
2.2a. The site authorised discharge points (a1)	A	
3.3j. MCERTS Requirements (g1)	A	
3.3k. Accessible sample point (g1)	A	
Oth. Other (a1)	A	
2 - Wastewater Treatment Works / STW settled storm sewage		
2.3c. Overflow to environment PFF/due to rainfall or snowmelt (b5)	A	
2.3e. Storage provided and emptied (b5)	A	

Descriptive Works Fail	N/A	Number of breaches recorded	0
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If the total no of breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

Little Marlow wastewater treatment works (WwTW) is regulated under Environmental Permit number **D 0058**. There is also a permit for the compensation flow to the River Wye numbered 1334. Population equivalent of 177,415. This report relates to an inspection carried out on 18 July 2023.

Please see below for the report sections:

1. Permit Breaches
2. Summary of Processes and Equipment on site
3. Comments and observations from site walk around and **Recommended Actions**

1. **Permit Breaches:** there are no permit breaches recorded for this visit.

2. Summary of Processes and Equipment on site

Site is manned Monday to Friday 07:30 – 15:36 hrs with 1 to 7 people at a time as it is a hub site.

Preliminary Stage

- Sewage is both pumped and gravity fed into the works siphon washout pumping station chamber which has a high level alarm float which triggers an A1 alarm.
- Cess waste is accepted at Little Marlow WwTW unless the site is storming, when access is denied and texts are sent letting customers know it is closed.
- 3 inlet screens (duty, assist, assist) which were installed 2015/16. The screens are cleaned by wash water system which also helps transport the screened rag to washpactors and skips for disposal. There is also a full flow bypass around the screens in the event of the screens becoming blinded, if this occurs then the flow diverts to the bypass via a weir and an alarm will be generated, there was no sign that this had been used recently.
- Storm separation takes place after the screens via a concrete weir. Flow to treatment (FTT) is set at 1442l/s. Sewage was not overflowing to the storm tanks at the time of the visit.
- Following the storm separation is an inlet flow meter that gives inaccurate instantaneous flow readings due to the grit collecting in the channel.
- There is also a penstock which used to be linked to the interstage pump station (PS) and would close should the interstage PS fail e.g. during a power cut. This was taken out of use because brownouts would cause the penstock to close even though the PS continued to operate. The penstock can still be used to reduce FTT and send incoming sewage to the storm tanks but there is a strict procedure to follow, escalating the issue through the business (Out of Hours Coordinator, Waste EDA and Duty Manager) before it should be operated.
- Grit removal was by 2 grit vortex systems but only 1 needs to be operational at a time.
- Flow to Treatment meter is located after the manual penstock and was reading 119l/s.

Dosing

- Ferric sulphate dosing takes place in the BNR.

Primary

- Flow is split between 3 primary settlement tanks (PSTs) which were all operational but all contained duck weed on the surface. The settled sewage gravitates from the PSTs to the interstage pumping station
- Retention times are 2+ hours and the site can operate with 2 PSTs so maintenance can be carried out.

Interstage Pumping Stage

- There are three variable speed pumps in the interstage PS (duty, assist and standby) that lift the sewage to the secondary treatment.
- There are 'high' and 'high high' level floats in the wet well linked to alarms.

Secondary

- Secondary treatment is provided by a Biological Nutrient Removal (BNR) plant which accelerates the natural biological processes by starving then feeding micro-organisms so that they remove phosphorus, ammonia and organic compounds.
- Three blowers (one duty and two assist) provide the oxygen for the aerobic stage of the BNR process.
- Effluent from the BNR is then passed through 4 final settlement tanks (FST's) to remove any final solids. They contained a lot of duckweed on their surfaces, but it did not appear to be leaving the tanks in any quantity.
- Return Activated Sludge (RAS) pumps return some of the sludge to the BNR and surplus activated sludge (SAS) passes to the sludge treatment area.
- Each FST has an adjustable sludge blanket detector installed and in the event of a FST high sludge blanket level being detected, an alarm for each tank is raised.
- The settled effluent is decanted over the peripheral weirs of the FST's and is split between the River Wye, River Thames and wash water.

Tertiary

- Approximately 320l/s of flow is pumped to the River Wye to compensate for High Wycombe STW closing in 2005. Due to the tighter consent conditions at the High Wycombe outfall approximately two thirds of the compensation flow passes through tertiary treatment provided by disc filters.
- If high level blanket alarms on the FSTs are triggered the compensation flow will stop.

Storm System

- There are 5 storm tanks with a combined capacity of 12,568m³.
- The tanks fill sequentially but only discharge from tank 5 with the EDM monitor and CCTV installed. There was also a level monitor for spills to the storm tanks.
- Return from the storm tanks is carried out manually to Marlow Bottom pumping station (PS) when FFT drops below 1,300l/s. Marlow Bottom PS then feeds into the siphon washout chamber along with sewage from part of the catchment.
- The storm tanks contain an Amajet system for removing any sludge in the bottom of the tanks. There was a small amount of liquid in the bottom of the storm tanks following the recent rainfall and the storm return valve was open and returning 7.5l/s at the time of the visit.

Monitoring

- Phoenix for WQ monitoring in the final effluent (FE) chamber to the River Thames.
- MCERTS flow meters on FE to River Thames read 595l/s and on FE to River Wye read 263.8l/s at the time of visit.
- FE sample point was labelled and was running clear. The outfall on the River Thames for both the FE and the storm is located about 500m from the site. Here the FE was also running clear and there were no signs that the storm outfall had discharged recently.

Sludge

- PST sludge and scum are removed and pumped to the raw sludge buffer tank.
- SAS is pumped to the SAS belt thickeners, then on to the aerated SAS Buffer Tank before being made into cake by 2 presses for the THP at Oxford or Mogden.

Improvement Work Planned

- Complete installation of a new pumping system which will take settled sewage from the interstage PS, bypassing the secondary treatment, and blending with the FE before the River Thames discharge flow meter. This is to provide short term resilience until an extra FST is added to the site. The system has an inbuilt MCERTS flow meter within it and a procedure for operating the pumping system will be produced before the system is operational in 3 – 4 months time. Just to be clear, if blended sewage is discharged from the site in this way, it will be a breach of your environmental permit – see letter from D Ophof dated 30 June 2023.
- Outstanding requirement for a feasibility study for an extra FST on site.
- Sludge treatment assessment including bringing the sludge presses down to ground level to improve maintenance access.

Other Issues

During the inspection I noticed the bunded trays of 2 IBCs were filled with what looked like water and a white coloured liquid - see photograph 1. This was highlighted to [REDACTED] while on site.

ACTION – Please ensure the bunds are emptied and no liquid can escape from the containers or bunding trays.

Photograph 1 - Bund needing emptying



Section 3- Enforcement Response		Only one of the boxes below should be ticked	
<p>You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.</p>			
<p>Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.</p>			X
<p>In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.</p>			
<p>We will now consider what enforcement action is appropriate and notify you, referencing this form.</p>			

Section 4- Action(s)			
<p>Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.</p>			
<p>Where the CCS Category is marked N/A then the specified action does not relate to a permit condition.</p>			
Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			
OA01	N/A	Please ensure the bunds are emptied and no liquid can escape from the containers or bunding trays.	16/08/2023

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.
- A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our **Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance categories

CCS category	Description
C1	A non-compliance which could have a major environmental effect
C2	A non-compliance which could have a significant environmental effect
C3	A non-compliance which could have a minor environmental effect
C4	A non-compliance which has no potential environmental effect

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

A permit holder can challenge any part of the CAR form by writing to the Environment Agency office local to the site within 28 days of receipt. If the issue cannot be resolved by the local office, a permit holder can raise a dispute through our official [complaints procedure](#).

If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the [Parliamentary and Health Service Ombudsman](#), phone their helpline on 0345 015 4033.