



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

Site	MARKYATE WASTEWATER TREATMENT WORKS, MARKYATE, HERTFORDSHIRE, AL3 8HJ			Permit Ref	CSSC.8549		
Operator/ Permit holder	THAMES WATER UTILITIES LTD						
Assessment Date	13/05/2024	Breach Date	13/05/2024	Time in	10:40	Out	13:00
What parts of the permit were assessed	Wastewater Treatment Works / STW storm sewage overflow, Wastewater Treatment Works tertiary treated sewage effluent						
Assessment Type	Site inspection: Wastewater Treatment Works - Operator Self Monitoring (OSM)		EPR Activity:	Water Discharge			
Recipient's name/position	Thames Water Utilities Limited						
Officer's name	Emma Boyle			Date issued	15/08/2024		

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 tertiary treated sewage effluent		
1.1a. EPR General management conditions (c2)	C3	1.1.1
1.1e. Maintenance of monitoring equipment (g1)	A	
2.2a. The site authorised discharge points (a1)	A	
2.3i. Telemetry to monitor events/activity (g1)	A	
2 - Wastewater Treatment Works / STW storm sewage overflow		
2.3c. Overflow to environment PFF/due to rainfall or snowmelt (b5)	C1	2.3.2a
2.3e. Storage provided and emptied (b5)	C3	1.1.1

Descriptive Works Fail	N/A	Number of breaches recorded	3
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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.

1. Introduction

Markyate STW is regulated by environmental permit ref. CSSC.8549

This CAR form is in relation to compliance inspections carried out on the 13/05/2024, and conducted in response to a pollution incident on the downstream watercourse, this has been recorded under NIRS 2241795 and multiples reports under 2253367. Other visits have been made by the EA to the receiving watercourses to assess impact. Thank you to TWUL (Thames Water Utilities Limited) for facilitating the inspections.

The site compliance manager could not recall the PE for site, please provide this and is required to treat 33.5l/s, before flows are diverted to storm tanks. These inspections were in response to extended storm discharges from Markyate STW. The impact of this storm sewage could be seen in the River Ver., which is a chalk stream habitat.

2. Notes on the site inspection:

Given the nature of the incident these inspections focussed primarily on the storm effluent pathway. I was taken from the inlet works to the storm storage tank, then to the discharge point, which is combined with the Final Effluent. WAP project to replace macerators with 2 screens. WAP project to replace fixed rate pumps in wet-well with variable speed pumps. - what is the time line for these works to be completed?

Site operates a double filtration system.

3. Inlet Works

Storm effluent is separated from the treatment process at the inlet works. A fixed plate is located at the end of the inlet channel which when flows exceed the Flow to Full Treatment (FFT) figure of 33.5l/s is consented

to overflow into the channel that feeds the storm tanks. The flow reading at the inlet works was reading 35l/s which is the maximum reading. No plans to change the meter. There is a fixed plate for FFT after storm weir set to 34l/s.





4. Storm Tank

The site has 1 of kidney shaped storm tank. The storm effluent then weirs to the overflow/discharge pipe through a copa sac. The flow while on site was over the top of the sac. During the inspection the storm tank was full, some evidence of becoming septic. The tank had been skimmed so no crust was developing. Storm has gravity returns: what is the flow rate needed to start the returns to site? When was the storm tank last empty so it could be clean?



Storm and final effluent have a combined discharge point on site, which causes the FE to backup when site is going to storm, this in turn submerges the UMON4 - as see while on site. Is there a plan to separate these flows out?



Flow is entering the returns well from the storm tank even though storm returns are closed. Where is the leak coming from, the tank itself or the overflow pipe. Please investigate and report back.

5.PST's

The flow is split evenly between the 2 PST's, the copa sac are full and need changing.





6. FST's

8 FST's on site. Number 5-8 have different media and are clear and free of moss and grass. Number 1-4 need herbicide dosing and filter arms on number 4 needs cleaning.



7. Tertiary Treatment:

This is contained in a sunken concrete pit, as the works are gravity feed after PST's. Groundwater is coming into sump through anti-floatation holes.



This is being pumped into the returns well. The backwash on the TT cloth media also goes to the returns well. However when the returns well is full, the pipe to the TT plant back ups and appears to start bubbling out of the ground.



The site has 3 tankers on continuous rotation pumping out the returns well



and taking effluent to East Hyde STW, this has been happening continually for the last 2 months. When the tankers are not activate pumping, the groundwater starts to bubbled up through the pipe route to the TT location and starts to flood the site.
what are the long term plans to rectify this, as this groundwater ingression is on site?

8. River Ver.:

I walked the section of the River Ver. from site to the discharge point, with the Thames Water staff present during the inspection. The river appears sluggish by Hollybush Lane and the culvert is mostly blocked, causing the river to divert into a ditch, a horses field, flooding the field entrance and then the road.



Thames Water could apply for FRAP from the Environment Agency to clear this blockage. Further down the river is completely blocked due to sediment, most likely due to low flows from previous partial blockage.



The discharge point for the STW is located opposite the Saffron restaurant, at this point due to previous blockages, the combined storm and final effluent are the only flow entering the watercourse.

Fisheries, Analysis and Reporting as well as the Environment Management teams to have assessed the impact of the prolonged discharge to storm; identifying that the River Ver. a chalk stream was a heavily polluted watercourse. The teams observed sewage fungus growth which covered the riverbed from bank to bank.

Section 3- Enforcement Response	Only one of the boxes below should be ticked
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.	
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.	
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.	
We will now consider what enforcement action is appropriate and notify you, referencing this form.	X

Section 4- Action(s)			
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.			
Where the CCS Category is marked N/A then the specified action does not relate to a permit condition.			
Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			
1 - 1.1a	C3	check and change copa sac's at PST's	N/A
2 - 2.3c	C1	groundwater being pumped into returns wet well, partially being managed by 3 tankers on rotation, but significant impact on River Ver.	N/A
2 - 2.3e	C3	adjust copa sacs on sotrm outlet and make sure they are not over topped with flow.	N/A

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 may request an appeal of the regulatory decision by emailing enquiries@environment-agency.gov.uk within 14 days of receipt of the outcome.

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.

