Compliance Assessment Report CAR_NRW0045046

Permit being assessed: AW1005201
For: RHAYADER STW RHAYADER, held by DWR CYMRU CYFYNGEDIG
At: RHAYADER STW, RHAYADER, ,, .

Type of assessment carried out: Site Inspection, Reason: Routine.
On 29/07/2024, between 09:58 and 10:45.
Parts of permit assessed: See criteria below

NRW Lead Officer: Robert Harding.
Report sent to: CARS Mailbox, CARS Mailbox, on 23/08/2024.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-A1 - Water Quality - Management - General management	Assessed (A)	
WQ-B1 - Water Quality - Operations - Permitted activities	Assessed (A)	
WQ-B2 - Water Quality - Operations - The site	Assessed (A)	
WQ-B3 - Water Quality - Operations - Operating techniques	Assessed (A)	
WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water	Assessed (A)	

Result types are explained in more detail in the 'Important Information' section below.

2. What action is required?

No action required.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

This was a pre-planned OSM site inspection carried out by Natural Resources Wales Officer Robert Harding. I was shown around the site by the following DCWW representatives.
MH- Operational Supervisor

BH- Site Operator
OB- Process Scientist

The weather during the visit was very warm and dry. I was shown through the works from inlet through to the outfall.

General Observations
The STW is a filter bed works consisting of two filter beds which process domestic effluent only. It is manned daily by an operator (not 24/7) and has telemetry in place for monitoring out of hours. At the point of inlet to the works there is a CSO outfall pipe which is a set pipe which sits in the inlet chamber, at a height where it will discharge when levels coming into the works reach the required height. The CSO operates under permit AB3498CC. There is a storm discharge consent active at the works under Permit reference AW1005202.

Inlet

The incoming flow to the site is raised up to the head of the works by two powered Archimedes screws. The right-hand side screw runs constantly during normal dry weather flows. The second screw is brought online automatically when flows into the works reach a certain level, this is measured by flow level telemetry equipment. At the time of the inspection only one Archimedes screw was in operation, as flows were below the trigger level.

Once at the head of the works, all flows pass through a macerator. There are two macerators in operation on site, which appeared to be operating effectively, as no significant signs of solids/rag were seen passing forward. Additionally, there is a bypass channel in place with a hard-set bar screen, which can be manually controlled using penstocks. The bypass channel and screens are in place for use when required for maintenance of the macerators. The bypass channel was not in use at the time of the inspection. Following maceration, the flows pass through to the storm weir.

The storm weir on site is a semi-hard-set weir setting within the flow channel following maceration. It is controlled by a flotation gate within the inlet channel. As the flows into the inlet increase, the level in the flotation chamber rises, which in turn causes the gate to close. The gate closing raises the water level within the storm weir channel/chamber, once this reaches the set height, flow will begin flowing over the weir into the storm system. When the incoming flows then drops, the level in the chamber will lower to the point where the gate is the opened and all flow will then be sent for full treatment. I questioned whether the gate closing would reduce the level of flows passing forward for full treatment by blocking the inlet. I was advised that it did not prevent normal flow levels passing through for treatment.

At the time of inspection, the gate was not closed and there were no flows entering the storm channel. There was no evidence to suggest that there had been recent discharges into the storm channel, as the channels appeared completely dry. The storm channel does not have additional screening as all flows into the site, pass through a macerator before the storm weir.

The UWWTW inlet sampling point is clearly marked and accessible.

Primary Settlement

There are 2 rectangular primary settlement tanks on site, with set scum boards for retaining solids. The outfall channels are manually brushed by site operatives as required. The settlement tanks both appeared to be operating effectively and solids were being retained within the boards. The influent within the centre of the settlement tanks appeared quite green with algae growth, however this was contained inside the retention boards. At the time of inspection there were a few clumps of solids present within the outfall chamber, but this was not excessive, and it appeared that the settlement system was preventing significant solids passing through to the next stage of treatment. The primary tanks are manually de sludged when required. The MCERTS flow meter is located between the primary tanks and the distribution chamber.

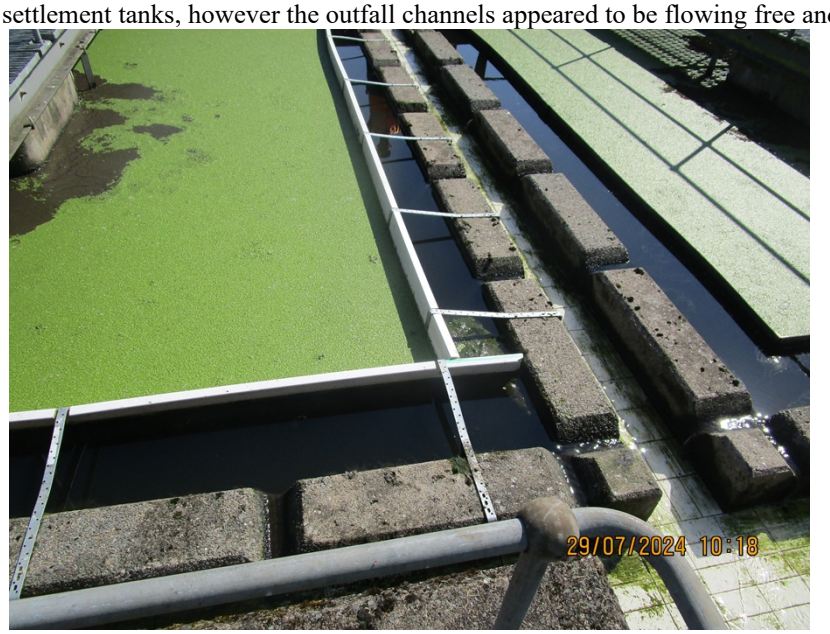
The outfall from the primary settlement tank leads to a 2 way, manually controlled distribution chamber. The purpose of which is to distribute the flows to the 2 filter beds on site. There were COPA sacs installed on all the pipes into the 2 distribution chambers. These appeared to be working effectively and were not blocked at the time of inspection. Once within each of the distribution chambers, there are siphons in place to ensure there is ample hydrological power to rotate the rotation arms of the filter beds.

Filter Beds

The works contains a 2 circular filter beds containing stone media. The rotation arms on each were moving free and unhindered at the time of inspection. There were no signs of ponding or dry patches across the filter beds and no excessive vegetation growth. The filter bed surfaces appeared slightly slimy in appearance, but this did not appear to be affecting distribution to the filter media. Overall, all, the filter beds appeared to be operating effectively.

Final Settlement Tanks

There are 2 rectangular final settlement tanks on site, with set scum boards for retaining solids. The outfall channels are manually brushed by site operatives as required. There was a coverage of duckweed present within the settlement tanks, which was being contained behind the retention boards. The final settlement system appeared to be operating effectively in preventing significant solids passing through to the outfall. There were signs of slight algae presence within the settlement tanks, however the outfall channels appeared to be flowing free and clear.



Outfall and Sampling point

The Final effluent sampling point is clearly marked with appropriate signage including the sample point number.

The outfall appeared to be flowing clear and there were no signs of problems within the effluent. We checked the outfall into the river Wye the outfall location in the river Wye. The outfall pipe is slightly further back from the watercourse, which means the effluent doesn't discharge directly into the main flow of the river. It does appear however that the effluent is mixing in with the main flow and there were no signs of pooling at the time of inspection. When the river is in higher flow levels it is likely that the discharge is into the main flow. There were no signs of sewage fungus build up or discolouration around the outfall, and the downstream of the outfall the watercourse appeared clear of any signs of pollution.

The storm outfall and CSO outfalls were also checked whist on site. There were no signs of recent discharge from either outfall, and there were no signs of impact on the watercourse downstream.

Storm Tanks

There are 6 in-line open rectangular storm tanks on site, which have a joint outlets channel on the downward side of the tanks. The storm tanks are manually returned to the head of the works when required. All the storm tanks were completely dry on inspection, and there were no indications of recent use. There are EDM sensors in place within the outfall channel from the storm tanks (storm to environment), with sensors installed at the overflow point of each storm tank. The storm discharge channel to the watercourse was clear and dry on inspection, there was no evidence to suggest a recent discharge.

CSO

At the time of the inspection the water level in the inlet chamber was well below the level at which a CSO discharge would occur. There was no visual evidence to suggest the CSO has recently been discharging and the outfall from the CSO appeared dry and clear.

General Comments

In terms of works operation, it appears the treatment process appeared in good working order and is producing effluent

within the consented limits.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm to the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend non-compliance for up to six months to allow time for remedial action to be taken. These will be re-instated if the action is not completed.

Full list of water quality action criteria (used in section 1 and 2):

WQ A: Management
- WQ-A1 General management

WQ B: Operations
- WQ-B1 Permitted activities
- WQ-B2 The site
- WQ-B3 Operating techniques
- WQ-B4 Improvement programme
- WQ-B5 Pre-operational conditions

WQ C: Emissions and monitoring
- WQ-C1 Emissions to water
- WQ-C2 Emissions to land
- WQ-C3 Emissions of substances not controlled by emission limits
- WQ-C4 Installation of monitoring boreholes

WQ D: Information
- WQ-D1 Records
- WQ-D2 Reporting
- WQ-D3 Notifications

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:
- offering or providing you with our literature or 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
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be

added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?
If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards
We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.