

Compliance Assessment Report CAR_NRW0048358

Permit being assessed: BH0073801

For: VERWIG STW VERWIG NR CARDIGAN DYFED, held by DWR CYMRU CYFYNGEDIG

At: VERWIG STW, VERWIG, NR CARDIGAN, DYFED, .

Type of assessment carried out: Site Inspection, Reason: Routine.

On 26/03/2025, between 11:53 and 12:16.

Parts of permit assessed: Conditions 1, 2, 3, 4, 6, 7 and 11

NRW Lead Officer: Bethan Lewis, accompanied by: Ffion Quan.

Report sent to: CARS mailbox, CARS mailbox, on 22/05/2025.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
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	Action only (X)	

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

2. What action is required?

Criteria	Action needed	Complete by
WQ-C1	Confirm whether calibrated apparatus is provided and maintained at Ferwig STW to permit the instantaneous rate of flow of effluent discharged to be measured accurately at any time.	03/07/2025

Action criteria codes are listed in the 'Important information' section below.

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 site inspection of Ferwig Sewage Treatment Works (STW) (permit number: BH0073801) carried out by Natural Resources Wales (NRW) Officers Bethan Lewis and Ffion Quan. The NRW Officers were accompanied during the inspection by a Dŵr Cymru Welsh Water (DCWW) Operational Supervisor.

For observations concerning the settled storm overflow at Ferwig STW (permit number: BH0073802), please refer to Compliance Assessment Report (CAR): CAR_NRW0048359.

Summary

The site inspection commenced at 11:53 hours on the 26 March 2025 and concluded at 12:16 hours. The weather at the time of the inspection was cloudy but dry. The previous day's weather was cloudy and mostly dry.

The NRW Officers were led through the treatment process from inlet to outfall, with the DCWW Operational Supervisor explaining how the works operated.

Ferwig STW is an activated sludge system. The site operator visits the site three times a week. The population equivalent for the site is believed to be 168.

Treatment Process

Sewage arrives at Ferwig STW by gravity, entering the inlet chamber shown in photograph 1 below. Once the level of sewage within the chamber reaches a certain level, sewage is pumped up to the screen shown in green in the background of photograph 1. The screen itself is comprised of small holes as shown in photograph 2 below. If the screen becomes overwhelmed, excess flows are returned to the inlet chamber. As described in CAR_NRW0048359, an overflow also exists within the inlet chamber which sends excess flows to the storm tank on site.



Photograph 1: Inlet chamber with screen visible in background



Photograph 2: Inlet screen

Following screening, flows passed forward to full treatment pass a flow meter whose visual display can be viewed within the control room on site. As sewage is only pumped up to the inlet screen periodically, flows passing the flow meter are not consistent. Whilst the pumps were operational, flows passing the flow meter reached 3.2l/s at the time of the inspection.

After passing the flow meter, flows enter an aeration lane shown in photograph 3 below. The aeration lane at Ferwig STW is aerated by a mobile aerator.



Photograph 3: Aeration lane with mobile aerator

Flows leaving the aeration lane enter the first of two settlement tanks shown in photograph 4 below. Activated sludge from this tank is returned to the aeration lane via the return pipe shown in photograph 5 below.



Photograph 4: First settlement tank



Photograph 5: Activated sludge return pipe

Flows exiting the first settlement tank enter a second settlement tank shown in photograph 6 below. This settlement tank comprises 6mm beads which encourages settlement.



Photograph 6: Second settlement tank

Sludge from the second settlement tank is transferred into the sludge holding tanks on site. These are shown in photograph 7 below. Effluent draining from the sludge holding tanks enter an effluent channel as shown in photograph 8 below. This effluent channel returns effluent to the inlet chamber shown in photograph 1.



Photograph 7: Sludge holding tanks



Photograph 8: Effluent discharge from sludge holding tanks

Flows exiting the second settlement tank pass through a final effluent sample point shown in photograph 9 below. Final effluent appeared clear at the sample point at the time of the inspection. A turbidity probe situated at the sample point continuously monitors final effluent quality. At the time of the inspection, the turbidity probe was reading ~3.7 NTU (Nephelometric Turbidity Units).



Photograph 9: Final effluent sample point and turbidity probe

Before reaching the outfall into the Nant Ferwig, final effluent and settled storm discharges at Ferwig STW combine. Ferwig STW's combined final effluent and storm outfall into the Nant Ferwig is shown in photograph 10 below. As no storm discharges were being made at the time of the inspection, flows discharging into the Nant Ferwig consisted of final effluent only. The discharge appeared clear with no signs of sewage fungus growth.

Conditions 4, 5 and 6 of permit BH0073801 state that the quantity of final effluent discharged

into the Nant Ferwig cannot exceed 1.6 litres per second, 138 cubic metres per day, or 37.7 cubic metres per day during dry weather flow conditions. From visual observation, there was no indication at the time of the inspection that these volumes and rates were being exceeded. Condition 7 of permit BH0073801 does however state that calibrated apparatus shall be provided and maintained at Ferwig STW to permit the instantaneous rate of flow of effluent discharged to be measured accurately at any time. This apparatus was not viewed by the NRW Officers at the time of the inspection. NRW therefore ask DCWW to confirm whether such apparatus exists at Ferwig STW by no later than the **03 July 2025**.



Photograph 10: Ferwig STW's final effluent and storm outfall into the Nant Ferwig

Final comments

We wish to thank the DCWW Operational Supervisor for accompanying the NRW Officers at the time of the above inspection. If DCWW wish to discuss the content of this CAR, we encourage them to contact the NRW Officer noted above.

In this document 'Natural Resources Wales' means the Natural Resources Body for Wales established by Article 3 of the Natural Resources Body for Wales (Establishment) order 2012.

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.