

## Compliance Assessment Report CAR\_NRW0040911

**Permit being assessed:** BN0008101

For: Cellan Wastewater Treatment Works, held by DWR CYMRU CYFYNGEDIG

At: Tre Cynon Street, Lampeter, Ceredigion, SA48 8HZ.

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

On 28/11/2022, between 11:05 and 11:30.

Parts of permit assessed: See criteria listed below

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

**Report sent to:** CARS mailbox, CARS mailbox, on 13/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-A1 - Management - General management	Assessed (A)	
WQ-B1 - Operations - Permitted activities	C3 Minor	2.1.1
WQ-B2 - Operations - The site	Action only (X)	
WQ-C1 - 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?

Criteria	Action needed	Complete by
WQ-B1	Confirm how often a storm discharge is made from Cellan WwTW, and consider the available options and confirm how the breach will be rectified.	17/04/2023
WQ-B2	Confirm the grid reference of the final effluent and storm discharge point(s) at Cellan WwTW.	13/03/2023

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.

**You are non-compliant with your permit.**

**At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.**

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 at Cellan Wastewater Treatment Works (WwTW) (BN0008101) carried out by Natural Resources Wales (NRW) Officers Bethan Lewis and Ffion Quan. The NRW Officers were accompanied by Dŵr Cymru Welsh Water (DCWW) Operatives Daniel Williams (Senior Operator) and Sarah Mowlam (Operations Coordinator).

### **Summary**

The site inspection commenced at 11:05 hours on the 28 November 2022 and concluded at 11:30 hours. The weather at the time of the inspection was dry, however regular showers had occurred over the preceding 24 hours.

The NRW Officers were taken through the treatment process from inlet to final effluent and storm discharge sampling points, with Daniel Williams explaining how the works operated.

The WwTW is a single filter bed works which processes domestic effluent only. Significant infiltration across the sewer network is said to dilute the influent received. The site has telemetry in place for monitoring and Daniel Williams, the site operator, visits the site twice weekly.

The population equivalent for the site is 178.

### **Treatment Process**

The treatment process at Cellan WwTW is undertaken by gravity. Flows arriving at the inlet first enter a septic tank as shown in the background of photograph 1 below, which separates out solid matter. Flows discharging from this septic tank enter a chamber as shown in the foreground of photograph 1, where flows are either sent to a single stone media filter bed as shown in photographs 2 and 3 below, or directly to an outfall without further treatment if a certain level is reached within the chamber. The latter can be described as a storm overflow activity. It is currently unclear whether flows discharging to storm via this overflow point, discharge at the same or different location to the final effluent.



*Photograph 1: Septic tank (background) and chamber (foreground)*

In accordance with condition 2.1.1, the only activity authorised by Cellan WwTW's permit is the discharge of secondary treated sewage effluent via the discharge point at SN 60129 49105 (drain to the Afon Teifi). Whilst it is true that the permit is descriptive and that flows discharging to storm may discharge via the same discharge point as above, a septic tank provides primary treatment only, meaning that the storm overflow activity described above is not authorised by the permit. As such, a category 3 non-compliance has been recorded above. There are several options available to DCWW to rectify this breach. These include, but are not necessarily limited to, applying for an environmental permit to cover the storm discharge activity; or blocking the storm overflow point within the chamber entirely and installing a balancing tank to regulate flows and/or reducing infiltration across the sewer network to reduce the volume of influent received. NRW ask DCWW to consider the available options and confirm how the breach will be rectified by no later than the 17 April 2023. Appropriate deadlines shall then be set for the completion of these actions. So that NRW understands how the storm discharge has been operating to date, NRW also ask DCWW to confirm by the 17 April 2023 how often a storm discharge is made from Cellan WwTW.

The site is not served by electricity, however an MCERTS flow meter is located between the septic tank and filter bed powered by solar energy. It is not possible to view live data from the flow meter on site, however this data can be accessed via telemetry. A site log book is kept near the flow meter and was viewed as part of the site inspection.

As can be seen from photographs 2 and 3 below, very little vegetation was observed at the surface of the stone media filter bed at the time of the inspection. The wall of the filter bed appeared in a slight state of disrepair, however no effluent was found to be leaking from the filter bed, therefore this was not of concern. As can be seen from photograph 2 however, at the time of the inspection, effluent was initially found to be pooling at the centre of the filter bed. This was caused by blockages in the arms forcing effluent downwards through the central column. This issue was immediately resolved when DCWW Operative Daniel Williams cleared the inside of the arms using a rod. The arms began to rotate unhindered distributing effluent equally across the surface of the filter bed as shown in photograph 3. Daniel Williams explained that this issue occurred sporadically at Cellan WwTW.



*Photograph 2: Stone media filter bed (prior to arm clearing)*



*Photograph 3: Stone media filter bed (post arm clearing)*

As can be seen from photograph 1, solid matter was observed within the chamber receiving effluent from the septic tank. This may be indicative of an issue with the septic tank given that it is responsible for removing solid matter from the flows received at the inlet. Solids which are not captured by the septic tank are likely to result in a greater number of blockages within the filter bed's rotating arms, and thus periodic deteriorations in final effluent quality. Solids carried over from the septic tank may also find their way into the final effluent discharged at the outfall. Although not entirely clear, as shown in photograph 4 below, small solid particles may have been present in the final effluent discharging from the filter bed on the day of the inspection. As Cellan WwTW's permit is descriptive, solid carryover from the septic tank and its associated impacts are unlikely to represent a breach of permit, however we recommend that DCWW investigate and resolve any issues with the septic tank at the earliest opportunity to prevent further deteriorations in final effluent quality.



*Photograph 4: Final effluent discharging from the filter bed*

An accessible final effluent sampling point with appropriate signage is located on site as shown in photograph 5 below. An unsigned storm discharge sampling point is also located on site as shown in photograph 6 below. At the time of the inspection, the site was found to be spilling to storm at the storm sampling point, possibly due to the regular showers experienced over the preceding 24 hours.



*Photograph 5: Final effluent sampling point*



*Photograph 6: Storm discharge sampling point*

At the time of the above inspection, the NRW Officers were accompanied to the bank of the Afon Teifi at approximately SN 60126 49035 in search of the final effluent discharge point. The DCWW Operatives were unsure of the location of the discharge point and were unable to locate it at the time of the inspection. The site inspection therefore concluded at the final effluent and storm discharge sampling points. Due to the unpermitted storm overflow activity identified during the inspection however, the NRW Officers were keen to view the WwTW

discharge point(s) to determine what impact the WwTW may be having on the receiving watercourse(s). NRW Officer Bethan Lewis therefore visited the site again on the 01 February 2023, however was again unable to locate the discharge point(s) despite walking the entirety of the drain feeding into the Afon Teifi, passing the permitted final effluent discharge point at SN 60129 49105, as shown in schedule 7 of Cellan WwTW's permit. Despite being unable to locate the discharge point(s), the NRW Officer observed no signs of pollution affecting the drain feeding into the Afon Teifi or immediately upstream/downstream of its confluence with the Afon Teifi, both of which are shown in photographs 7 and 8 below. The NRW Officer also did not notice any odour. Therefore, whilst the location of the discharge point(s) remains unknown, NRW have no evidence to suggest that the WwTW is having a negative impact on the drain feeding into the Afon Teifi or the Afon Teifi itself. NRW do however ask DCWW to confirm the grid reference of the final effluent and storm discharge point(s) at Cellan WwTW by no later than the 13 March 2023.



*Photograph 7: Drain to the Afon Teifi*



*Photograph 8: Afon Teifi downstream of drain confluence*

**Final Comments**

We wish to thank Daniel Williams and Sarah Mowlam for accompanying the NRW Officers at the time of the above inspection. If DCWW wish to discuss any aspect of this Compliance Assessment Report (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](mailto: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](mailto: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.