

Compliance Assessment Report CAR_NRW0049757

Permit being assessed: BP0236601

For: Swansea Bay Wastewater Treatment Works, held by DWR CYMRU CYFYNGEDIG
At: Fabian Way, Crymlyn Burrows, Swansea, SA1 8QP.

Type of assessment carried out: Other, Reason: Incident Response (Incident number: 2508829).

On 24/09/2025.

Parts of permit assessed: Permitted Activities

NRW Lead Officer: Sarah Bennett.

Report sent to: CARS@dwrwymru.com, CARS Mailbox, on 10/11/2025.

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	C3 Minor	2.1.1 The only activities authorised by the permit are the activities specified in schedule 1 table S1.1.
WQ-B1 - Water Quality - Operations - Permitted activities	Action only (X)	
WQ-C3 - Water Quality - Emissions and monitoring - Emissions of substances not controlled by emission limits	C3 Minor	3.2.1 For the activity A1, referenced in schedule 1, table S1.1, the operator shall take appropriate measures to minimise so far as reasonably practicable the polluting effects of the emissions of substances in the discharge not controlled by emission limits (excluding odour).
WQ-C3 - Water Quality - Emissions and monitoring - Emissions of substances not controlled by emission limits	Action only (X)	
WQ-D3 - Water Quality - Information - Notifications	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	Please inform us of what measures you have/will put in place to minimise the risk of a similar event occurring which could result in a discharge of non-UV treated final effluent from Swansea WwTW. Include an explanation of how the measures fit into your management systems. If you have changed your management systems due to lessons learned from this recent event, please indicate where the changes have been made.	12/12/2025
WQ-B1	If possible, please provide us with an estimate of the volume of non-UV treated effluent discharged on the 24 September 2025. Please show us how you arrived at/calculated the estimate.	12/12/2025
WQ-C3	Please inform us of what measures you have/will put in place to minimise the risk of pollution, i.e. an escape of plastic media into the sea, and how this is written into your management systems. If you have changed your management systems due to lessons learned from this recent event, please indicate where the changes have been made.	12/12/2025
WQ-C3	If possible, please provide us with an estimate of the number of disks that were lost from Swansea WwTW. Please show us how you arrived at/calculated the estimate.	12/12/2025

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.

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 Compliance Assessment Report (CAR) relates to a discharge of non-UV treated final effluent containing MBBR plastic media from Swansea Wastewater Treatment Works into Swansea Bay via the long sea outfall on Wednesday 24 September 2025.

On Wednesday 24 September 2025 at 08:01 you notified us via an OPNOT that you had arrived at Swansea WwTW to find high levels in the works which had caused localised flooding within the building. At this point in time, you knew that some final effluent had left the works via the long sea outfall without being UV treated but you could not see any

evidence of plastic media having escaped.

We have been informed that you received a failed alarm for Blower No. 1 at 06:57 followed by a failed alarm for Blower No. 3 failed alarm 07:14. You believe the MBBR lanes started overflowing at around 07:45. You believe the cause or the flooding was that 2 blowers failing simultaneously caused the MBBR baskets to block and flows to be inhibited through the normal flow path. You have also been investigating a failure of the level controller suggested on one of the MBBR lanes.

Work to recover the media from within the works continued throughout the rest of the week and into to following week but flows were re-instated on the same day.

You informed us that you had identified some spurious readings from the MCerts flowmeters on site following the flooding out of the dry chambers where they are situated. The flowmeter readings were spiking intermittently but appeared to be less erratic than when the flooding occurred yesterday. The flowmeters were being monitored and would be inspected.

On Monday 29 September 2025 you informed us that all of the lanes were operating as pre incident, with no further issues since the incident on the morning of 24 September.

On Sunday 28 September 2025 we started receiving reports of plastic media being washed up on a number of beaches in Swansea and Gower as well as the rocky shore. We continued to receive reports until mid October 2025 during which time you had been picking up the media. We also received reports of media on Aberavon and Crymlyn Beaches. On the 22 October 2025 a small amount of media was found on Tenby and Freshwater East. Since then more media has been seen on a number of beaches in Pembrokeshire with the last reported sighting being in Abermawr.

You have informed us that as you did not see any evidence of the plastic media in the long sea outfall pumping station well you assumed that none had escaped with the final effluent. It has now become apparent that the reason you did not see any media in the well is that its contents had already been discharged into Swansea Bay due to the high tide at the time. There was also no evidence of plastic media in the UV channels because the effluent contaminated with media had bypassed the UV plant.

Compliance and Actions

Your permit only authorises a discharge of secondary treated sewage effluent subject to disinfection by ultraviolet irradiation and settle storm sewage.

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|-------|---|
| 2.1.1 | The only activities authorised by the permit are the activities specified in schedule 1 table S1.1. |
| A1 | Discharge of secondary treated sewage effluent subject to disinfection by ultraviolet irradiation via Final Effluent Discharge Point. |
| A2 | Discharge of settled storm sewage via Settled Storm Discharge Point |

The discharge of effluent which bypassed the UV treatment system was not compliant with condition 2.1.1. and I have recorded the non-compliance in this CAR.

This breach is in contravention of Regulation 38 (2) of the Environmental Permitting (England and Wales) Regulations 2016 which states that it is an offence for a person to fail to comply with or to contravene an environmental permit condition.

Action: Please inform us of what measures you have/will put in place to minimise the risk of a similar event occurring which could result in a discharge of non-UV treated final effluent from Swansea WwTW. Include an explanation of how the measures fit into your management systems. If you have changed your management systems due to lessons learned from this recent event, please indicate where the changes have been made.

Action: If possible, please provide us with an estimate of the volume of non-UV treated effluent discharged on the 24 September 2025. Please show us how you arrived at/calculated the estimate.

I believe that the plastic media that was discharged is an emission of a substance not controlled by the emission limits of your permit.

Condition 3.2.1 requires that 'for the activity A1, referenced in schedule 1, table S1.1, the operator shall take appropriate measures to minimise so far as reasonably practicable the polluting effects of the emissions of substances in the discharge not controlled by emission limits'.

Action: Please inform us of what measures you have/will put in place to minimise the risk of pollution, i.e. an escape of plastic media into the sea, and how this is written into your management systems. If you have changed your management systems due to lessons learned from this recent event, please indicate where the changes have been made.

Action: If possible, please provide us with an estimate of the number of disks that were lost from Swansea WwTW. Please show us how you arrived at/calculated the estimate.

I understand that the OSPAR Commission has published a document titled Best Practice guidance to prevent the loss or leakage of plastic biomedica in wastewater treatment plants (OSPAR Agreement 2025-14)¹. Please see attached document.

You notified us almost immediately via telephone and OPNOT that there had been an issue which had, was or may cause pollution. You are therefore compliant with condition 4.3.1(a) of your permit.

4.3 Notifications

4.3.1 Natural Resources Wales shall be notified as soon as reasonably practicable following detection, within the site of the regulated facility of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;

Thank you.

End

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.