

Compliance Assessment Report CAR_NRW0046312

Permit being assessed: AB0064001

For: Llanfrechfa Storm Tanks, held by DWR CYMRU CYFYNGEDIG

At: Ponthir WwTW Inlet Works, Track opposite Graig House, Station Road, Ponthir, NP44 3EU.

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

On 06/02/2025, between 10:30 and 12:15.

Parts of permit assessed: Permit Compliance

NRW Lead Officer: Elis Nuttall, accompanied by: Peter Jones.

Report sent to: Dwr Cymru, Water Industry, on 25/06/2025.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-D3 - Water Quality - Information - Notifications	C3 Minor	4.3.1(a)
WQ-B3 - Water Quality - Operations - Operating techniques	C3 Minor	1.1.1
WQ-B3 - Water Quality - Operations - Operating techniques	Action only (X)	
WQ-A1 - Water Quality - Management - General management	Action only (X)	
WQ-D3 - Water Quality - Information - Notifications	C3 Minor	4.3.1(a)
WQ-B3 - Water Quality - Operations - Operating techniques	C2 Significant	1.1.1
WQ-A1 - Water Quality - Management - General management	C4 No impact	1.1.1
WQ-B3 - Water Quality - Operations - Operating techniques	C3 Minor	1.1.1

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

2. What action is required?

Criteria	Action needed	Complete by
WQ-D3	Identify when and why the spill at the inlet occurred and provide NRW with a report of the findings as well as evidence of any maintenance work required to ensure this does not re-occur.	30/07/2025
WQ-B3	Undertake the necessary maintenance to return the bypass system to its automatic functionality and inform NRW once this is completed.	30/07/2025

Criteria	Action needed	Complete by
WQ-B3	Return all inlet screens to working order and provide NRW with evidence of completion.	30/07/2025
WQ-A1	Remove the large black pipe observed in the channel and inform NRW of when this has been completed.	30/07/2025
WQ-D3	Provide further detail on the reported control building flooding event, what/if any site infrastructure was impacted and why NRW were not informed of this event.	30/07/2025
WQ-B3	Undertake maintenance to clear out the settled sludge from the storm tanks as a matter of urgency. Provide NRW with the dates that this will be undertaken and continual updates on progress.	30/07/2025
WQ-A1	Improve access to the storm outlet channel by removing excess vegetation. Provide NRW with evidence of its completion.	30/07/2025
WQ-B3	Clear the outfall screen blockage of built up debris to improve flow. Provide NRW with evidence of its completion.	30/07/2025

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

Site Visit Report

This report details the site visit by Natural Resources Wales (NRW) on the 06/02/2025 to Ponthir Sewage Treatment Works (Storm Tanks), permit reference number EPR - AB0064001.

I (NRW Environment Officer Elis Nuttall) and Peter Jones (NRW Environment Officer) attended Ponthir STW at Ponthir, Newport, NP18 1PG for an OSM inspection at 10:30 where we met with the Dŵr Cymru Welsh Water (DCWW) South East Wales Catchment Manager. The weather was dry, clear and cold at the time of the visit.

Note that this report outlines the assessment made for the inlet and storm tanks at Ponthir STW. The primary treatment and final effluent systems are assessed in a separate report.

General Observations

This site is the inlet and storm storage site for Ponthir Sewage Treatment Works. This site serves a population size of approximately 104,074.

The permit for this asset was originally issued on 11/07/1991 with the most recent variation and consolidation (AB0064001 + AB0064002) being issued on 15/07/2024.

We were accompanied at all times during the visit by DCWW operators who were on hand to answer questions and elaborate on certain aspects of the system.

Site Infrastructure

Inlet observations:

The inlet was inspected first. The following observations were made of each component of the system.

The flow and channel into the inlet was clear of debris build-up at the time of the visit but previous evidence of blockage and overflow i.e. ragging, was present caught in the safety railings and bushes near the inlet. This is evidenced in Figures 1 & 2. No records of when and why this spill occurred. This is a breach of Condition 4.3.1 (notifications) and is reflected in the scoring below.



Figure 1 – Ragging and debris buildup on the safety railings showing evidence of a spill/overflow at the site.



Figure 2 – Ragging and debris buildup caught in the bushes near the inlet. As in Figure 1, evidence of a spill but no records of this were known.

The sensors in place should have triggered the opening of the sluice/overflow and used the bypass system before any spills such as this could have occurred. It is also noted that NRW did not receive an OPNOT for this spill. A request was made for DCWW operators to check their records and identify why this spill was not recorded and communicated with NRW. It was noted by DCWW operators that the valve to open the sluice is manual as opposed to being automatic. DCWW noted that this will be replaced to reinstate the automatic functionality, and it is a part of the maintenance programme for the site. The system can still use the bypass if required but the valves would be manually opened/closed as opposed to using an automatic opening function. The bypass would only be used if all screening had failed and prevented forward flow.

On inspecting the inlet screens it was stated that one of the three coarse (2inch spacing) screens was out of service at the time of the visit, however no flow was passing through this screen. Parts were reported to be on order, but I request that evidence is provided once the repairs are complete. See list of actions below for further details. However, the operational screens appeared to be working effectively, with solids being removed and no excessive build-up present. This is evidenced in Figure 3.



Figure 3 – Coarse screen conveyors as observed during the visit. No excessive buildup of debris present.

Management practices of these screens were noted to be manual daily cleaning by operators of conveyors and screens 7 days a week, with wastes from the screens and conveyors being deposited in the waste skips on site. These skips are then emptied every “few weeks” by a third party contractor based on DCWW’s operators visual assessments. It was observed during this visit that a significant quantity of separated wastes had collected on the ground outside of these skips, as seen in Figure 4. A clean up of these wastes was actioned immediately by DCWW, but management improvements are reflected in the advisory actions list below.



Figure 4 – The on-site waste skips with the escaped wastes collecting beneath them as observed during the visit.

The fine screens (6mm apertures) on site were observed with no buildup of debris present. The apertures appeared to be appropriate and within the consent of the permit. This is evidenced in Figure 5. The macerator was working effectively at the time of the visit.



Figure 5 – The fine screens as observed at the time of the visit.

The storm overflow weirs were observed, and were not in use during the visit with all flows passing to treatment. It was stated that the Emergency Storm Overflow weir (discharging directly to river) is set at 6 x Dry Weather Flow, and the Storm Overflow weir (discharging to the storm tanks) is set at 3 x Dry Weather Flow. Sensors were in place at both weirs as per the permit requirements, as seen in Figures 6 & 7. There were no observable cracks or damage present on either weir. DCWW operators stated it was unknown when the storm overflow was last operational, but that it was recent (to the date of the visit), and that the data would clearly display when. No issues were noted at this location.



Figure 6 – Storm overflow weir with sensor visibly in place.



Figure 7 – Storm overflow outlet to the storm tanks.

When asked about the grit removal process at the inlet it was stated that the site does have a grit classifier, but it is not currently in use and has not been operational for a considerable amount of time. The infrastructure is still in place (see Figure 8), but the effluent currently bypasses it. DCWW are looking at AMP budgets to bring it back online, but it is noted that the inclusion of grit removal in this manner is not a permit requirement. At present, grit is removed during the primary treatment process. An advisory comment below reflects these intentions.

Beyond this point the effluent passes to the primary treatment facility.



Figure 8 – The isolated/bypassed grit classifier as observed during the visit.

In addition to the inlet infrastructure assessment, I made several other observations regarding the site as a whole during the visit. These are as follows.

As seen in Figure 9, there was a large black pipe seen in the channel prior to the fine screens, raising concerns of causing an obstruction in the system. When queried, DCWW operators noted that some pumping work had clearly been taking place. It was later confirmed that the pipe was being used to pump flows from the Llanfrechfra SPS into the flow. At the time of the visit this work had been completed and the pipe was left hanging and not connected. DCWW have actioned for the pipe's removal as soon as practicable.



Figure 9 – Large black pipe as observed during the visit.

A green pipe was seen running from the control building and into the storm overflow channel, as seen in Figure 10. This was noted to be the outlet pipe for a sump pump for when the control building was flooded. There was ragging and debris scattered around the general area which is unmistakable evidence of spills/overflows on site. NRW were not passed an OPNOT informing of any issues being experienced, constituting a breach of condition 4.3.1. This is listed below along with the requisite actions.



Figure 10 – The sump pump outlet pipe as observed during the visit.

There was residual ragging and waste materials across site, with the site being generally unkempt. This again is a sign of a significant overflow. Records of overflows will be requested from DCWW. See advisory actions list below for general site maintenance.

The Flume was observed (Figure 11), with level sensors to calculate FPF in place (Figure 12). The penstock is calibrated to shut at 826l/s.



Figure 11 – Flume as observed during the visit with fixed flow control.



Figure 12 – Level sensors observed to be in place on the flume

Storm tank observations:

An assessment of the Storm Tanks was undertaken. It was noted by DCWW operators that there are 4 tanks in total (numbered 1-4) with a capacity of 950m³ each, combining to a total capacity of 3800m³, with pipework and weir volume providing an additional 100m³ of storage. They are ~ 2-3m deep and on the day of the visit it was stated that the inlet volume was ~500l/s but FTF was ~800l/s. It is noted that we were not in storm conditions at the time of the visit and the storm overflow was not in operation.

As a part of operations, spray bars (introduced in AMP5) push sludge into the drain valve which returns the flow to treatment. There were no significant cracks or damage to the tanks observed, with maintenance being undertaken based on visual inspections by DCWW operators. It was noted that the storm tank return was manual.

All tanks were holding some water during the visit, but there was a large disparity in volume present, with Tank 4 holding significantly more water than tanks 1-3. Additionally, all tanks had a buildup of sludge present at the inlet and within the tanks themselves. As the buildup of sludge was significant in all storm tanks (particularly in Storm Tank 3) I queried the maintenance schedule of the tanks. DCWW operators stated that the tanks are cleared/dug out “as needed” based on visual checks after each storm event, but there was significant buildup of sludges at the time of this visit which is impacting return to the treatment system. I raised concerns regarding the reduced storage capacity this buildup has caused (estimated to be ⅓ less than the stated capacity) to which DCWW operators stated they would undertake a clear out as a matter of urgency. Regarding the setup for returning storm to the inlet and what the drawdown time is, DCWW stated that flows from the storm tanks go back into the line feeding main site in Ponthir STW. The flow rate at which this occurs was not known at the time of the visit.

A record of observations and photos of each individual storm tank is as follows.

Storm Tank 1 was holding water at the time of the visit, as evidenced in Figure 13. There was some sludge buildup at the inlet (Figure 14) which I verbally actioned DCWW operators to clear out as a priority. No cracks or damage to the tank was observed.



Figure 13 – Storm Tank 1 as observed during the visit.



Figure 14 – Sludge buildup at the inlet of Storm Tank 1.

Storm Tank 2 was holding water (Figure 15) and displayed a similar buildup of sludge at the inlet

(Figure 16).



Figure 15 – Storm Tank 2 as observed during the visit.



Figure 16 – Sludge buildup at the inlet of Storm Tank 2.

Storm Tank 3 had drained down more than 1,2 and 4 but displayed a significant amount of sludge buildup estimated to be ~1-1.5m deep at the deepest point (as seen in Figures 17 and 18). This is clearly reducing tank capacity, and it was estimated that the tank is operating at $\frac{2}{3}$ capacity. I requested information on when the last time the tanks were cleared out, but this information was not known at the time of the visit.



Figure 17– Storm Tank 3 as observed during the visit.



Figure 18 – Significant sludge buildup at the inlet of Storm Tank 3.

Storm Tank 4 was holding a significantly larger volume of water than Tanks 1-3 (Figure 19), raising concerns that it was not draining down effectively, potentially due to a drain down valve issue. I actioned DCWW to check this with the network manager. And, as observed with tanks 1-3, there was a buildup of sludge in the inlet channel, although photographic evidence of this was not taken at the time.



Figure 19 – Storm Tank 4 as observed during the visit.

In all instances where sludge build up was present, the material was dry and hard in parts, and in other areas it was wet. This indicates a build up over time and not just an isolated incident/storm event.

The effluent channel to the storm outlet was clear at the time of the visit, as seen in Figure 20.



Figure 20 – Effluent channel to Storm Outlet as observed during the visit.

The Storm Outlet to the river was then inspected. EDM sensors were observed to be in place (Figure 21), however there was no flow or discharge to the river at the time of this visit.



Figure 21 – Storm outlet channel with EDM sensors in place. No flow at time of the visit.

General access and grounds maintenance need improvements at this location due to heavy vegetation. It also appears that a spill had occurred in the past similarly to that at the inlet works, with ragging a debris present around the channel retaining walls.

The screen directly prior to the outfall was heavily blocked by debris, as evidenced in Figure 22. I issued a verbal action for DCWW to clear this obstruction and to improve maintenance works at this site in future.



Figure 22 – Final screen prior to storm outfall blocked by debris as observed during the visit.

Officers left the storm tank site to continue the assessment of the Primary Treatment and Final Effluent systems.

Breaches of permit condition:

Below are the permit breaches that were identified during the site inspection.

CATEGORY 3 BREACH – PERMIT CONDITION 4.3.1(a) – *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

Due to the evidence of a spill occurring at the inlet works, which caused significant debris

deposition as well as the flooding of the control room, and the subsequent lack of notification (via self-report or OPNOT) NRW consider this a breach of the above condition and have issued a Category 3 breach accordingly.

CATEGORY 3 BREACH – PERMIT CONDITION 1.1.1 - *The operator shall manage and operate the activities:*

- a. *in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints.*

It was noted by DCWW operators that the automatic function of the bypass system is not currently operational, with the site currently relying on its manual operation.

CATEGORY 3 BREACH – PERMIT CONDITION 4.3.1(a) – *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*

No notification for the flooding of the control building was sent to NRW, even though this event has implications for the effective operation of the site.

CATEGORY 2 BREACH – PERMIT CONDITION 1.1.1 - *The operator shall manage and operate the activities:*

- (a) *in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints.*

Based on the evidence observed a maintenance failure has occurred regarding the clearing out of settled sludge from the storage tanks, resulting in an estimated $\frac{1}{3}$ reduction in storage capacity due to the excessive sludge buildup. This constitutes a significant environmental hazard and has been assessed as a Category 2 breach of the above condition.

CATEGORY 4 BREACH – PERMIT CONDITION 1.1.1 - *The operator shall manage and operate the activities:*

- (a) *in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints.*

Access to the storm outlet channel was hindered by vegetation overgrowth. While not a direct influence on effluent treatment or quality it may affect individual's ability to access the site. As such NRW have assessed this as a Category 4 breach of the above condition.

CATEGORY 3 BREACH – PERMIT CONDITION 1.1.1 - *The operator shall manage and operate the activities:*

(a) in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints.

The blockage observed on the storm outlet channel screen poses a risk of impeded flows and has the potential to result in a spill overtopping the outlet channel. NRW have assessed this as a Category 3 breach for maintenance.

Action required by dates specified:

1. Identify when and why the spill at the inlet occurred and provide NRW with a report of the findings as well as evidence of any maintenance work required to ensure this does not re-occur.

Deadline: 30/07/2025

2. Undertake the necessary maintenance to return the bypass system to its automatic functionality and inform NRW once this is completed.

Deadline: 30/07/2025

3. Return all inlet screens to working order and provide NRW with evidence of completion.

Deadline: 30/07/2025

4. Remove the large black pipe observed in the channel and inform NRW of when this has been completed.

Deadline: 30/07/2025

5. Provide further detail on the reported control building flooding event, what/if any site infrastructure was impacted and why NRW were not informed of this event.

Deadline: 30/07/2025

6. Undertake maintenance to clear out the settled sludge from the storm tanks as a matter of urgency. Provide NRW with the dates that this will be undertaken and continual updates on progress.

Deadline: 30/07/2025

7. Improve access to the storm outlet channel by removing excess vegetation. Provide NRW

with evidence of its completion.

Deadline: 30/07/2025

8. Clear the outfall screen blockage of built up debris to improve flow. Provide NRW with evidence of its completion.

Deadline: 30/07/2025

Advisory comments

1. Improve the notification process for the site and inform NRW of any abnormal process or component failure that has the potential to or has actually caused a breach to emissions conditions.
2. Improve maintenance programmes so that general management of the site e.g. cleanup of separated wastes, is undertaken without delay.
3. Reinstate grit classifier to improve treatment and reduce wastes transported/deposited in downstream infrastructure.
4. Review general site management practices in order to keep the site in a tidy and safe operational condition. This includes frequency of clean ups and removal of built up wastes.

If we do not receive the information requested within specified deadline and have not been informed as to why there is a delay then we may serve a Regulation 60 Notice requiring the information under Environmental Permitting (England and Wales) Regulations 2016.

Contact details:

If you have any queries regarding this CAR form or to provide an update on any actions above, please contact me using the following details: Elis Nuttall, Environment Officer, elis.nuttall@naturalresourceswales.gov.uk, 0300 065 4651.

Thank you,

Elis Nuttall.

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.