

Compliance Assessment Report CAR_NRW0037004

Licence being assessed: 24/67/4/0013.

For: Abstraction from Brenig Reservoir to Afon Brenig for augmentation, held by Dwr Cymru Cyfyngedig.

At: .

Type of assessment: Report/Data Review, Reason: Other.

On 14/03/2020.

Parts of licence assessed: Compensation flow

NRW Lead Officer: Nathan Owen, accompanied by Jenny Rees-Jones.

Report sent to: Jo Cullen, North Area Water Resources Manager , on 25/02/2021.

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

Part of licenced activity assessed (criteria)	Assessment result	Licence condition
WR-C1 - Surface/groundwater level and protected flow - Minimum hands-off flow/level requirements	C3 Minor	Other conditions ii

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

2. What action is required?

Criteria	Action needed	Complete by
WR-C1	<ol style="list-style-type: none"> 1. Replace diaphragm 2. Regular operational exercising of the valves. 3. Ensure compensation flow released at all times with immediate effect. 	31/10/2020

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 or civil sanctions being imposed depending on the circumstances of the offence.

You are non-compliant with your licence.

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

The Brenig licence requires in 'other conditions ii' -

A continuous flow of not less than 4.5 MI/d to be released into the Afon Brenig. This is also required in Section 7 of the Dee and Clwyd River Authority (Brenig Reservoir) Order 1972 which is modified by the Welsh Water Authority (Brenig Reservoir) (Variation) Order 1985.

The total discharge from Llyn Brenig and Llyn Alwen combined to be:

13.6 MI/d 1 October to 31 March inclusive.

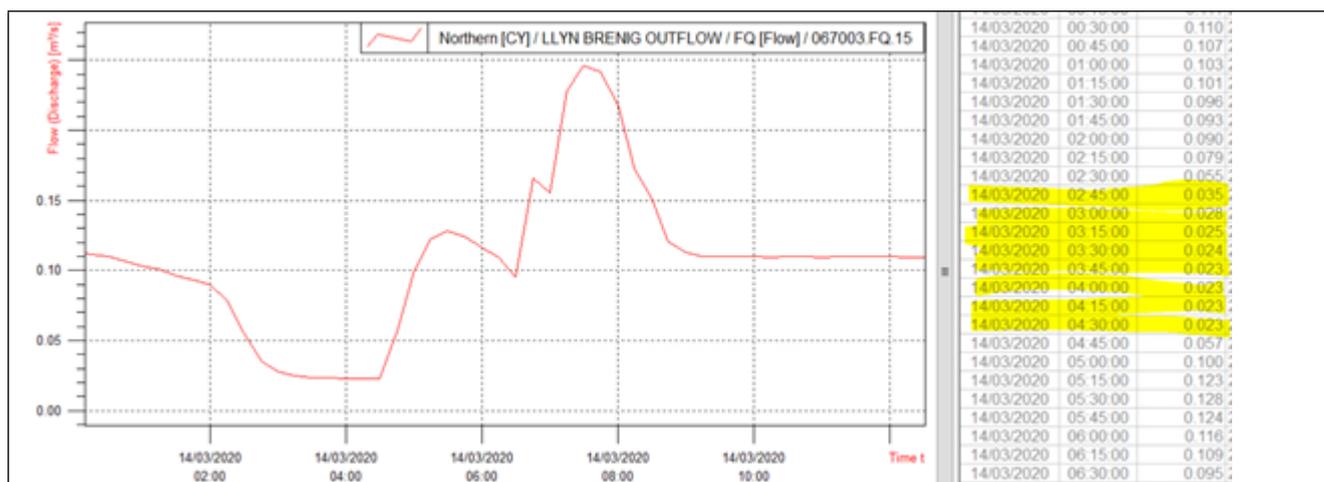
25 MI/d 1 April to 30 September inclusive.

DCWW reported to NRW on Saturday 14/03/2020, that they had underreleased the required compensation flow of 4.5 MI/d, (0.053m³/s. This was confirmed by 15 minute data interval, provided by DCWW, on the 19/03/2020.

14/03/2020 02:00	7.003
14/03/2020 02:15	7.058
14/03/2020 02:30	5.224
14/03/2020 02:45	3.301
14/03/2020 03:00	2.986
14/03/2020 03:15	2.851
14/03/2020 03:30	2.783
14/03/2020 03:45	2.716
14/03/2020 04:00	2.716
14/03/2020 04:15	2.693
14/03/2020 04:30	2.693
14/03/2020 04:45	4.448
14/03/2020 05:00	8.623
14/03/2020 05:15	10.77

The above diagram, it shows that the under release was first logged by DCWW at 02:45 on the 14/03/2020, and continued to log as under releasing until 04:45 on the 14/03/2020, lasting ~2 hours.

The under release is also shown on NRW's data readings, shown in m³/s.



NB There are slight inconsistencies between NRW and DCWW data as can be expected due to the variability in the water level and level monitoring equipment used. However both sets of data indicate that, at it's lowest, flow dropped to roughly half of the flow required in the licence.

The above under release is a breach of condition, ii.

At the time of the under-release from Brenig, the Alwen was spilling, and the outflow was 0.6 m³/sec, meaning that the combined release from Alwen and Brenig was well in excess of the winter requirement of 0.158m³/sec (cumecs) or 13.6 MI/d.

The quality assured data provided to NRW by DCWW on 24/06/2020 for this period reported that on 14/03/2020 9.58ML was released from Brenig, which is compliant with the daily requirement, although not continuous as required in condition ii.

The Afon Brenig flows for approximately 1.7km before meeting the Afon Alwen. Llyn Alwen was spilling at the time, so flows in the Afon Alwen would have been sufficient to mitigate against the impacts of under-release from Llyn Brenig on the Afon Alwen.

Nursery areas like the Afon Brenig act as supporting habitat to the Afon Dyfrdwy a Llyn Tegid Special Area of Conservation (SAC), within which salmon are a principle reason for the selection of the site. The non-compliance occurred in March when salmon and trout ova can be expected to be present in the gravels, therefore a sudden drop in flow has the potential to impact both on ova in the gravel and on juvenile fish populations.

There is no suitable spawning gravel immediately downstream of the dam until a small stream provides valuable gravels at SH97272 53573, ~390m downstream. NRW have previously identified salmon and trout redds downstream of this point but the flows would also have been higher here to an extent, due to the natural runoff entering from small tributaries. Once alevins emerge from the gravel they are known to move some distance from their birth site to find suitable cover.

The level of impact resulting from this non-compliance is uncertain as no site visit was possible due to its occurrence in the middle of the night and short duration (2 ¼ hours).

The non-compliance has been assessed as C3, in line with NRW's Compliance Classification Scheme, which is based on reasonably foreseeable impact on fisheries and actual impact on water resources.

DCWW submitted an investigation on the 11/09/2020, including the following information.

Executive summary

Major capital investment is currently being delivered at Llyn Brenig. To enable replacement of some of the valves the release was swapped from the 'A' line to the 'B' line. The B line is rarely used and the valves associated with it are infrequently tested/used. The constant flow valve failed and the release was interrupted. Site attendance identified the valve which had failed and restored flow to the environment. The compensation release was below 4.5Ml/d for 2 hours and 15 minutes and so was non-compliant with the Brenig abstraction licence 24/67/4/13 (other conditions ii).

DCWW identified the following to be actioned by the 31/10/2020 -

Part of the reason the diaphragm failed was due to a lack of maintenance. This lack of maintenance is being addressed by the ongoing capital works on site, which led to the B line being used for water release. Further operational checks and maintenance of the valves will reduce the likelihood of reactive failure of any of the valves on site at Llyn Brenig and mitigate risk of any future releases to the environment being compromised. There are two recommendations to be completed:

- 1. The diaphragm within the constant flow valve is being replaced;*
- 2. Regular operational exercising of the valves on the B line to confirm full travel and condition will give confidence the valves will not fail when being relied upon to release water for compensation.*

These actions have been completed and DCWW are aware that they must ensure that the agreed compensation rates are delivered at all times.

Natural Resources Wales takes note of the timely response time by DCWW and the satisfactory investigation carried out post incident.

This CAR form comes with a warning, issued.

Please contact myself if you wish to discuss this.

Regards

Nathan Owen

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 licence is issued to you under the Water Resources Act 1991 as amended by the Water Act 2003. You have a responsibility to comply with the conditions of your licence 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.

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 resource action criteria (used in section 1 and 2):**WR A: Abstraction specified by Licence**

- WR-A1 Source of supply
- WR-A2 Points of abstraction
- WR-A3 Means of abstraction
- WR-A4 Purposes of abstraction
- WR-A5 Period of abstraction
- WR-A6 Quantities
- WR-A7 Land
- WR-A8 Other specified on licence

WR B: Abstraction measurement and records

- WR-B1 Means of measurement
- WR-B2 Recording
- WR-B3 Reporting

WR C: Surface / Groundwater level and protected flow

- WR-C1 Minimum hands-off flow/level requirements
- WR-C2 Flow/level measurement devices
- WR-C3 Recording
- WR-C4 Reporting

WR D: Environmental monitoring and information

- WR-D1 Recording
- WR-D2 Reporting
- WR-D3 Notifications

WR E: Fish and eel passage

- WR-E1 Infrastructure specified by licence
- WR-E2 Maintenance and records

WR F: Discharge

- WR-F1 Point of discharge
- WR-F2 Infrastructure
- WR-F3 Measurement
- WR-F4 Recording
- WR-F5 Reporting

WR G: Impoundment specified by licence

- WR-G1 Inland water to be impounded
- WR-G2 Manner and extent of impoundment
- WR-G3 Point(s) of impoundment
- WR-G4 Construction and removal requirements
- WR-G5 Other specified on licence

WR H: Borehole infrastructure

- WR-H1 Infrastructure and accessibility
- WR-H2 Maintenance and calibration

Enforcement response

Any licence condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution or civil sanctions. 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 (Mon to Fri 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.