

## Compliance Assessment Report CAR\_NRW0041933

**Licence being assessed:** 24/67/5/0004.

For: Abstraction from Oerog Springs near Trevor, Cefn-Mawr, held by Hafren Dyfrdwy Cyfyngedig.

At: Trevor, Llangollen, LL20 7UH.

**Type of assessment:** Site Inspection, Reason: Other.

On 27/03/2023, between 13:00 and 14:00.

Parts of licence assessed: 10. Further provisions

**NRW Lead Officer:** Philip Barrett, accompanied by Rebecca Redmond.

**Report sent to:** Liz Franks, Environmental Policy Senior Specialist, on 17/11/2023.

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

Part of licenced activity assessed (criteria)	Assessment result	Licence condition
WR-B1 - Abstraction measurement and records - Means of measurement	Assessed (A)	
WR-C1 - Surface/groundwater level and protected flow - Minimum hands-off flow/level requirements	C3 Minor	10 (a)

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	Ensure the correct formula is used	31/07/2023

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

**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

A site visit was carried out on the 27th March 2023, to the abstraction that takes place at the Oerog spring by Hafren Dyfrdwy under licence 24/67/5/0004. The reason for the visit was to look at concerns raised by HD on supplying the correct compensation flow during

planned works.

The reason for the required maintenance work was shown to be a leaking inspection chamber that caused the water to flow through the damaged mortar joints in the brickwork. This allowed the water to flow down the watercourse and away from the site rather than entering the water chamber as it is designed to do.

A trial excavation had been carried out around the inspection chamber to assess the extent of the damage in order to plan the work that is required. Silt screens were visible in the watercourse below the trial excavation to contain any mobilised sediment while the test excavation were taking place. It was explained that the water will be over-pumped around the damaged chamber and the silt screens would remain in place during the further required works. A recommendation was made to create a works area around any disturbed soil to reduce the potential of the compensation flow carrying sediment downstream.

It was explained that the compensation flow is calculated on a control system within the pump house. The system at the time was showing the outlet flow from the works to be 72.6m<sup>3</sup>/hr and the compensation flow to be 60m<sup>3</sup>/hr.

$72.6 + 60 = 132.6$  m<sup>3</sup>/hr total flow from the spring

$132.6 / 100 = 1.326$

Compensation flow  $60 / 1.326 = 45.25$

Abstraction flow  $72.6 / 1.326 = 54.75$

Condition 10 a states: The rate of abstraction made from the Oerog springs under the terms of this licence shall not exceed 87.5% of the flow of water from Oerog springs as measured on site to the agency's satisfaction.

The calculations above show that the abstraction is within the requirement of condition 10 (a), with a rate of abstraction 54.75% of the spring flows. The compensation flow was increased due to the flow from the leak adding to this.

Abstraction quantities were not assessed during the visit.

The formula used to calculate the available flow for abstraction was provided by email

**5.6.3.2 Compensation Flow**

When the duty pump is requested to start, the current compensation flow is checked to determine the amount of water available to the treatment plant. This is calculated as follows:

$$\frac{\text{Current Compensation flow (FIT104) m3/hr}}{\text{Current Compensation Flow Setpoint (12.5\%)} } * 100 = \text{Allowable Works Flow m3/hr}$$

If available the variable speed drive shall start at minimum operating speed, this shall start the flow through the treatment plant. Once flow is established the system shall enable the chlorine and phosphate dosing systems. Following a short delay the pump shall ramp the flow up slowly (allowing the dosing systems time to respond) and also ensuring that the system does not exceed the allowable works flow.

Once the variable speed drive has reached full speed, the duty fixed speed drive shall be requested to start and at the same time the variable speed drive shall be ramped down quickly to minimum operating speed. Following a short delay if the variable speed drive is selected as the standby drive then the system shall re-check the allowable works flow to ensure this is over the flow of two fixed speed drives running. If this is the case the assist fixed speed drive shall be requested to start and at the same time the variable speed drive shall stop.

If the VSD is the assist drive then it will ramp up to full speed, ensuring that the works flow remains below the allowable works flow.

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This formula doesn't appear to be correct to calculate the allowable works flow of 87.5%.

From the understanding of the site and licence, the formula should be (current compensation flow/100) \* 87.5 = Allowable works flow m3/hr

Can you please ensure the correct formula is used and provide an explanation of this by 31st July 2023. It would be useful to know how this is monitored while the pumps are in use as the formula appears to be used before the duty pump is requested to start.

Please contact me on the details below if you wish to discuss this further.

Phil Barrett  
0300 065 3670

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](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.