

Compliance Assessment Report CAR_NRW0046630

Permit being assessed: AN0305101

For: SIX BELLS MINEWATER TREATMENT SCHEM, held by The Coal Authority
At: SIX BELLS MINEWATER TREATMENT, FORMER EMPRESS CAR SALES SITE, ADJ ABERTILLERY LEISURE CENTRE, ABERTILLERY, .

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

On 18/03/2025, between 08:05 and 09:20.

Parts of permit assessed: Site operations

NRW Lead Officer: Elis Nuttall.

Report sent to: Alice Mellor, Environmental Compliance Manager, on 25/03/2025.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
WQ-B3 - Water Quality - Operations - Operating techniques	C3 Minor	10(e)
WQ-B3 - Water Quality - Operations - Operating techniques	C3 Minor	10(g)
WQ-D1 - Water Quality - Information - Records	Action only (X)	
WQ-B3 - Water Quality - Operations - Operating techniques	Action only (X)	
WQ-B3 - Water Quality - Operations - Operating techniques	Action only (X)	
WQ-A1 - Water Quality - Management - General management	Action only (X)	

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

2. What action is required?

Criteria	Action needed	Complete by
WQ-B3	Clear excess vegetation from the Reedbed to ensure even flow distribution throughout. Date for planned works to be confirmed and agreed with NRW due to significant nature of the maintenance required.	25/09/2025
WQ-B3	Undertake a cut of the Reedbed and remove excess growth in line with the planned cut regime. Date for planned works to be confirmed and agreed with NRW due to significant nature of the maintenance required.	25/09/2025
WQ-D1	Provide NRW with final treated effluent discharge rates for the period 18/09/2024 – 18/03/2025. This is to reflect the change in stop level at the abstraction/cascade.	25/04/2025

Criteria	Action needed	Complete by
WQ-B3	Organise and undertake a de-sludge/clear out of the cascade outlet channels prior to discharge into the settlement lagoons.	25/04/2025
WQ-B3	Assess and inform NRW when the next de-sludge of the lagoons will take place.	25/04/2025
WQ-A1	Remove and dispose of the used flocculant matting located at the outlet of the settlement lagoons. This should be undertaken by a registered waste carrier and copies of waste transfer notes kept for a period of no less than 2 years.	25/04/2025

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.

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

Site Visit Report

This report details the site visit made on the 18/03/2025 to Six Bells Mine Water Treatment Scheme (MWTS) by Natural Resources Wales (NRW), permit reference number EPR-AN0305101.

I (NRW Officer Elis Nuttall) attended Six Bells MWTS, Abertillery, NP13 2EF for a permit compliance visit at 08:05 where I met with representatives from the Mining Remediation Authority (MRA) and Severn Trent Water (STW). The weather was clear and dry during the visit with no rainfall for several days prior.

General Observations

The site is a mine water treatment scheme treating and removing dissolved iron (Fe) from an abandoned mine shaft. The consented level of Fe permissible in the discharge is 3mg/l and a discharge rate of 6,912m³/day. The site was operational at the time of the visit.

Site Infrastructure

Prior to inspecting the site infrastructure a brief discussion on changes in operations was held with the site operators. It was noted that since the use of flocculants was ceased (~6 months before this visit) the stop level on the abstraction was raised to 5m, reducing flow and reportedly enabling increased performance of the treatment system. While I have no objections in principle to this change and there are no conditions regarding abstraction rates I would request that the operators remain mindful of the impact this may have on discharge rates of treated effluent. I have requested monitoring data for the period since

the changes were implemented to assess if there have been any impacts on the discharge rate.

Additionally, it was stated that the MRA Environmental Compliance Manager is currently forming a proposal for a change in operations for the site in order to increase the Fe limit to 4mg/l. The justification for this proposal is to reflect the improvements in the local environment and to allow the site to treat effluent within the permitted concentrations without the need of chemical dosing or flocculants. I am awaiting this proposal and will consult with the NRW Permitting Team to assess and form a decision.

The infrastructure observations and assessments are as follows.

The cascade was observed to be in operation at the time of the visit, albeit intermittently due to the raising of the stop level as described above. There was no excessive build up of oxidised Fe, and the rate of flow was within the expected range. This can be seen in Figure 1.



Figure 1 – Cascade in operation at the time of the visit.

It was noted by MRA that since the installation of the current cascade ~2 years prior to this visit, a small defect regarding flow distribution has become apparent on the right hand cascade where the water favours a pathway on the left hand side (as seen in Figure 2). This has not caused an issues regarding the aeration and initial settlement of Fe, so continued monitoring and visual spot checks will be sufficient to manage the cascade, however if significant changes or issue develop because of this defect they should be assessed and remedied as soon as practicable.

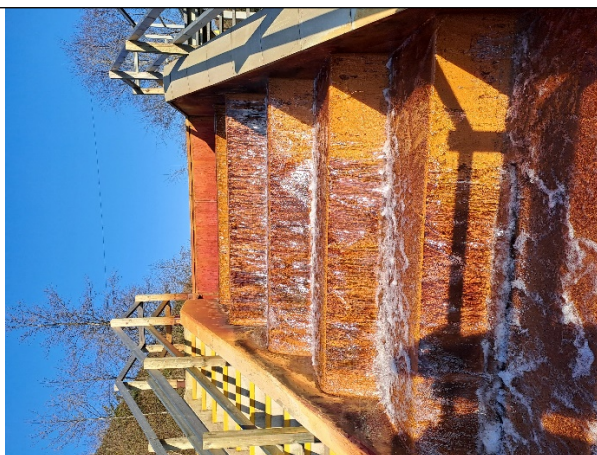


Figure 2 – Right hand cascade displaying the flow distribution disparity, favouring the left hand side.

The outlet from the cascades (to both lagoons) were observed to be accumulating significant amounts of sediment and oxidised iron particles. While the discharge itself was clear, and flow was linear along the teeth I advised that a de-sludge of both outlets should be undertaken. The conditions observed during the visit are seen in Figure 3 (left hand outlet) and Figure 4 (right hand outlet).



Figure 3 – Left hand outlet with significant sediment build up at the time of the visit.



Figure 4 – Right hand outlet with significant sediment build up at the time of the visit.

The settlement lagoons were in very good condition, as seen in Figure 5. It was noted that the most recent de-sludge was undertaken ~3 years prior to this visit. As per condition 10(c) of the permit (lagoon maintenance) *“all settlement lagoons shall be de-sludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids”*, I request that the MRA review its management system for the site and make an assessment of when the next de-sludge will be undertaken.

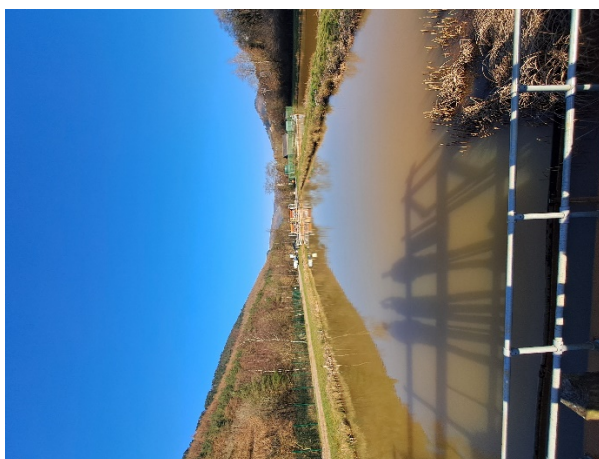


Figure 5 – An example of the lagoon conditions at the time of the visit.

At the side of the lagoons it was observed that the flocculant matting placed near the lagoon outlets had been removed (Figure 6). It was stated this was done ~6 months prior to this visit. I welcome the cessation of their use as well as the MRA's proposals to vary the permit (as noted above) to enable continued reliable performance at the site. I request that the flocculant matting be removed from site by a registered waste carrier if it is no longer in use and constitutes a waste product.



Figure 6 – Flocculant matting removed from the settlement lagoons.

The drain down pond was not in use at the time of the visit but there was evidence of sediment build up on the northern side as seen in Figure 7. It was noted that there is currently no pump in the chamber, with safety concerns hindering the installation of a new unit. At the time of the visit the system was fit for purpose, but improvement possibilities were discussed, along with position statements signed by NRW officers. I will check with the relevant officers regarding this position statement and contact the MRA if any further information is required.

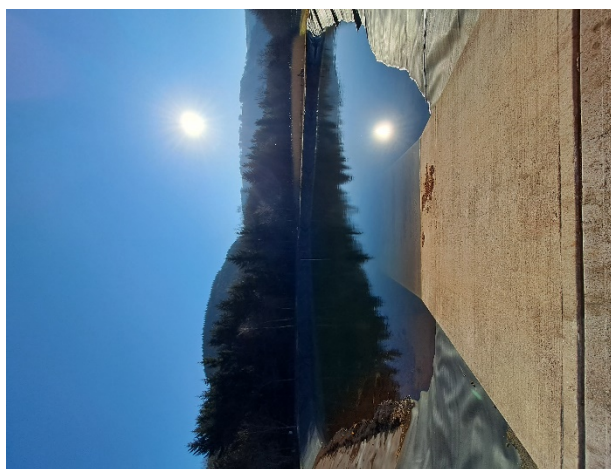


Figure 7 – The drain down pond as observed during the visit.

The reedbeds were assessed, with the inlet appearing mostly clear and linear flow across the teeth. The reeds themselves looked to be in a serviceable condition, with new growth beginning to show after the winter dieback. This is seen in Figures 8 and 9. At the time of the visit the reedbed was still treating the water effectively.



Figure 9 – The inlet to the reedbed as observed during the visit.

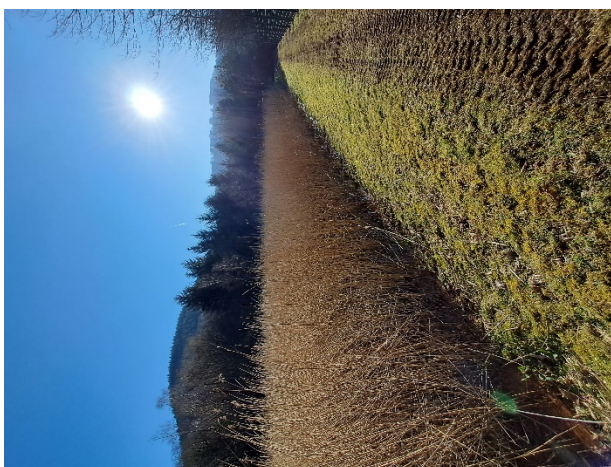


Figure 10 – The reedbed as observed during the visit.

This reedbed is on an 18 month – 2 year cut programme, as stated by MRA operators. However, the last maintenance conducted was a full refurb ~5 years prior to the visit. As a result, it is overdue a cut. This was made evident when observing the outlet of the reedbed. As seen in Figures 11 and 12, there is a significant build up of dead and decaying vegetation in the castellations, causing the water to overtop in several locations (Figure 13). As per condition 10 of the permit (reedbed maintenance), I have breached the site on this and actioned a cut and clear out of the reedbed to address the issues observed. Please see below for further details.



Figure 11 – Outlet of the reedbed showing build up of vegetation impacting flow.



Figure 12 – One of the castellations with a build up of vegetation impacting flow.



Figure 13 – Water overtopping the reedbed and flowing towards the discharge point due to vegetation build up.

The outlet towards the discharge point (as seen in Figure 14) was visibly clear and the quality of the effluent look to be sufficient.



Figure 14 – The outlet from the reedbed at the time of the visit.

The discharge point was accessible despite a warning that some branches had fallen during the recent storms, but the conditions were not severe enough to breach the site on access. As an advisory comment I will note general grounds maintenance be upheld to manage this aspect of the site management.

The discharge point itself was in good condition with the water visually very clear and no downstream discolouration or staining present, as seen in figures 15 and 16. I will request an updated example of discharge flow data for the site to reflect the change in stop level noted at the outset of this report. See details below.



Figure 15 – The discharge point at the time of the visit.



Figure 16 – Downstream of the discharge point at the time of the visit.

No further observations or assessments were made during this visit. A brief discussion around the observations and to query any outstanding issues was held before I left site at 09:20.

Breaches of permit condition:

1. CATEGORY C3 BREACH – PERMIT CONDITION 10(e) – Water bypassing the reedbed castellations.

The treatment system shall be operated and maintained in accordance with good operational practice such that:

For the Reedbed:

(e) the mine water flow does not by-pass or short circuit within the Reedbed.

Due to excessive build up of vegetation and sediments in the Reedbed the mine water was bypassing it in several locations as evidenced in Figure 13 above. This constitutes a Category 3 breach. The required actions and deadlines to address this breach are listed below.

2. CATEGORY C3 BREACH – PERMIT CONDITION 10(g) – Excessive weed growth and build up

The treatment system shall be operated and maintained in accordance with good operational practice such that:

For the Reedbed:

(g) the Reedbed shall be maintained to prevent excessive weed growth.

The build up of vegetation which caused the mine water to bypass the Reedbed (as outlined above) can be attributed to the extended period of time since the last maintenance programme was conducted, said to have been a complete refurb of the Reedbed ~5 years prior to this visit. This constitutes a Category 3 breach. The required actions and

deadlines to address this breach are listed below.

Other advisory comments:

1. Grounds maintenance could be improved. There were several locations where waste material (i.e. barbed wire, fence posts) and tree branches (due to storms) were present which could pose an access or hazard issue. While no conditions are set to regulate these observations, I advise that under good maintenance practices that these minor issues are addressed when possible.

Action required by dates specified:

1. Clear excess vegetation from the Reedbed to ensure even flow distribution throughout. This can be done in conjunction with action 2 below.

Deadline: Planned maintenance – to be agreed with NRW.

2. Undertake a cut of the Reedbed and remove excess growth in line with the planned cut regime. This can be done in conjunction with action 1 above.

Deadline: Planned maintenance – to be agreed with NRW.

3. Provide NRW with final treated effluent discharge rates for the period 18/09/2024 – 18/03/2025. This is to reflect the change in stop level at the abstraction/cascade.

Deadline: 25/04/2025

4. Organise and undertake a de-sludge/clear out of the cascade outlet channels prior to discharge into the settlement lagoons.

Deadline: 25/04/2025

5. Assess and inform NRW when the next de-sludge of the lagoons will take place.

Deadline: 25/04/2025

6. Remove and dispose of the used flocculant matting located at the outlet of the settlement lagoons. This should be undertaken by a registered waste carrier and copies of waste transfer notes kept for a period of no less than 2 years.

Deadline: 25/04/2025

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, 03000 65 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.