

Restoration of opencast mines

Research Briefing

July 2024



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This research briefing explores policy and practical issues relating to the restoration of opencast mining sites in Wales.

It looks at the history of restoration provisions and the challenges these brought and outlines the Welsh context, touching on planning policy and best practice guidance. It examines the restoration picture across Wales and sets out the situation relating to a number of opencast mining sites, including Wales's last opencast site – Ffos y Fran in Merthyr Tydfil.



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1. Opencast mining

Opencast (or surface) mining is a quarrying technique where coal seams relatively near the land's surface are exposed by the excavation of overlying rock. The rock lying over and under each seam (the 'overburden' and 'interburden') is excavated and stored nearby, exposing coal seams (including those that would be too thin to remove by deep mining) to be extracted. Capital and working costs are lower for opencast than underground mining, and at the end of the working life of the mine the area is often filled using the overburden to restore the site.

As with deep mines, the number of opencast sites has been steadily declining since the 1960s. Despite this, over the last decade several million tonnes of coal have continued to be extracted each year in the UK through opencast.

Due to its rich coal seams, south Wales has been home to numerous opencast sites over the years, of varying sizes. Following the closure of the Ffos y Fran opencast site in late 2023, there are no active opencast sites in Wales.

Planning Policy Wales sets out the Welsh Government's position on opencast mining:

Proposals for opencast, deep-mine development or colliery spoil disposal should not be permitted. Should, in wholly exceptional circumstances, proposals be put forward they would clearly need to demonstrate why they are needed in the context of climate change emissions reductions targets and for reasons of national energy security.

The history of opencast restoration

Coal extraction in the UK was privatised in 1995, but with the mineral rights to the coal remaining in public control via the Coal Authority. Prior to privatisation, mineral rights to all coal reserves and most extraction had been controlled and managed by the National Coal Board (later renamed British Coal). The larger sites, which were managed directly by British Coal, were the subject of competitive bids by specialist contractors. British Coal held a "restoration lump sum" which was held back until the coal had been extracted and final restoration had commenced. Therefore if a contractor failed, or reneged on the contract, adequate funds had been retained to complete the works.

Operators of private opencast sites were required to put in place a bond against restoration of the site. The beneficiary of that bond was the Minerals Planning Authority. The role of British Coal in these sites was that of the mineral licencing

authority and it usually charged a royalty per tonne if the operator sold the coal, or bought the coal at a reduced rate in lieu of a royalty.

At privatisation, the British Coal opencast operation in south Wales was acquired by a newly formed company, Celtic Energy Ltd, which acquired operational sites managed by British Coal and a number of licences for sites which had yet to obtain planning consent. Subsequently new opencast sites were developed by a number of operators.

Celtic Energy Ltd was bound by planning conditions for these sites. However, no restoration bonds were required of the new operator, nor were restoration bonds applied to sites obtaining planning permission (or extensions to permissions) during the decade following privatisation. Sites and site extensions obtaining planning permission since 2005 have been the subject of various types of restoration bond with varying amounts of money accrued. A **2014 study on failure to restore opencast mines in Wales** stated:

The lack, or inadequacy, of bond protection, coupled with other commercial pressures may at times contribute to a situation where full compliance with planning conditions and successful restoration may not be achieved.

The Welsh Government has **expressed concern** about the historical UK Government privatisation arrangements, expressing disappointment about the ten year immunity from bond requirements: The previous Minister for Climate Change, Julie James MS, stated the:

... culture this has emboldened has had a profound effect on the ability of public bodies to secure sufficient funds and safeguards to deliver full restoration” and “there is a lack of funding affecting sites that will mean difficult and unsatisfactory decisions will need to be made about revised restoration plans.

2. Provision for restoration

Policy and best practice guidance

Managing the restoration and associated public safety of an opencast mine following closure is a matter for the landowner/site operator and the local authority. The following policy and guidance is designed to support effective site restoration, set within the wider context of the planning system.

Planning Policy Wales

Planning Policy Wales (PPW) Edition 12 (February 2024) addresses restoration and aftercare of mineral extraction sites, including opencast coal. It states planning conditions should ensure that land affected by mineral extraction is restored to a high standard suitable for its agreed after-use at the earliest opportunity, and work begun within six months of cessation of working wherever this is practicable (except where progressive restoration has already commenced).

In relation to financial guarantees, it says planning conditions should secure the restoration, aftercare and after-use of mineral sites. Operators and landowners should ensure sufficient finance is set aside to enable them to meet restoration of aftercare obligations. For coal sites, the stated objective is to ensure that full restoration costs are covered in line with the stage of development as set out in the **Coal Authority's Best Practice guidance note**.

Minerals Technical Advice Note 2: Coal (MTAN2) (2009)

MTAN2 provides detailed advice on mechanisms for coal extraction policy delivery for both surface and underground mining techniques by Minerals Planning Authorities (MPAs) and the coal mining industry.

It states early (pre-application) consideration of reclamation proposals and potential after-use should inform the overall site design, and be agreed before planning permission is granted. The reclamation scheme should:

- propose a final landform in keeping with the natural character of the area;
- demonstrate the suitability of the scheme for the proposed after-use;
- set out clearly how site working and reclamation will be phased including how landscape and planting will be phased through the life of the site;
- include progressive restoration wherever appropriate; and

- explain how uncertainties such as shortfalls in soil will be tackled.

Specifically on reclamation of opencast sites, MTAN2 states:

Wherever possible, land will be re-instated to contours and levels similar to original ground surface and schemes should ensure that in all circumstances that all overburden and soil materials are fully utilised with none remaining unused.

Appendix Q contains an outline of best practice for reclamation. It states local planning authorities should, where appropriate, “develop strategies based on landscape character areas to provide a framework for individual site reclamation” and that “consultation is a critical element in the design of reclamation schemes”.

Coal Authority best practice guidance

In February 2016 the Coal Authority (on behalf of the Welsh Government) published **best practice guidance on restoration liability assessments for surface coal mines**. Its role is to assist in interpretation of policy and guidance in PPW and MTAN2 and aims to:

... highlight, address and prevent the potential risks that could lead to the abandonment of surface mines prior to completion. It aims to ensure that sufficient security arrangements are in place so that the public purse and impacted communities are protected against a situation whereby the Operator is unable to complete restoration.

Its three key recommendations were:

- Surface coal mines shall have an annual restoration liability assessment to ensure the liability is fully secured.
- The assessment shall be led by an independent expert assessor appointed by the local authority and funded by the Operator. They should calculate the cost of restoring the site to the planning permission and **Section 106 conditions**.
- The local authority will determine the level of risk it is willing to accept.

3. Research into the failure to restore opencast coal sites in south Wales

In April 2014, the Welsh Government published **Research into the failure to restore opencast coal sites in South Wales** (the “2014 report”). **ERM** was commissioned to explore current and potential risks relating to inadequate restoration, and potential reasons for failure to restore. It sought to identify where the bond or surety held by the local planning authority fell short of the level which might be required to restore a site in accordance with the planning permission, should the site be abandoned or left unrestored.

Opencast sites considered in study

A total of ten active sites were identified. Additionally, broad consideration was given to four sites which were restored (but in aftercare), and three where the planning applications had been submitted but were yet to be determined.

Table 1: Opencast sites considered in 2014 Welsh Government report

Site	Operator	Location
Bwlch Ffos	Horizon Mining Ltd	Resolven, Neath Port Talbot
East Pit	Celtic Energy Ltd	Neath Port Talbot
Margam Surface Mine	Celtic Energy Ltd	Neath Port Talbot/ Bridgend
Forest Quarry 2 extension	Horizon Mining Ltd	Neath Port Talbot
Selar North	Celtic Energy Ltd	Glynneath, Neath Port Talbot
Tower Colliery	Tower Regeneration Ltd	Hirwaun, Rhondda Cynon Taf
Glan Lash	Bryn Bach Coal Ltd	Llandybie, Carmarthenshire
Dynant Fawr	Dynant Fach Colliery Ltd (dissolved)	Tumble, Carmarthenshire
Ffos y Fran	Miller Argent South Wales	Merthyr Tydfil

Site	Operator	Location
Nant Helen	Celtic Energy Ltd	Coelbren, Powys
<i>Sites with planning application submitted but to be determined - excluded from study</i>		
Varteg	Glamorgan Power Company Ltd	Varteg, Torfaen
Nant Llesg	Miller Argent South Wales Ltd	Rhymney, Caerphilly
Bryn Defaid	Celtic Energy Ltd	Aberdare, Rhondda Cynon Taf
<i>Sites in aftercare - excluded from study</i>		
Bryn Henllys	Celtic Energy Ltd	Cwmtwrch, Powys
Cwm-yr-onnen	Bryn Bach Coal Ltd	Neath Port Talbot and Carmarthenshire
Nant-y-Mynydd	Energy Build Ltd	Glynneath, Neath Port Talbot
Seven Sisters	Newscheme Ltd	Seven Sisters, Neath Port Talbot

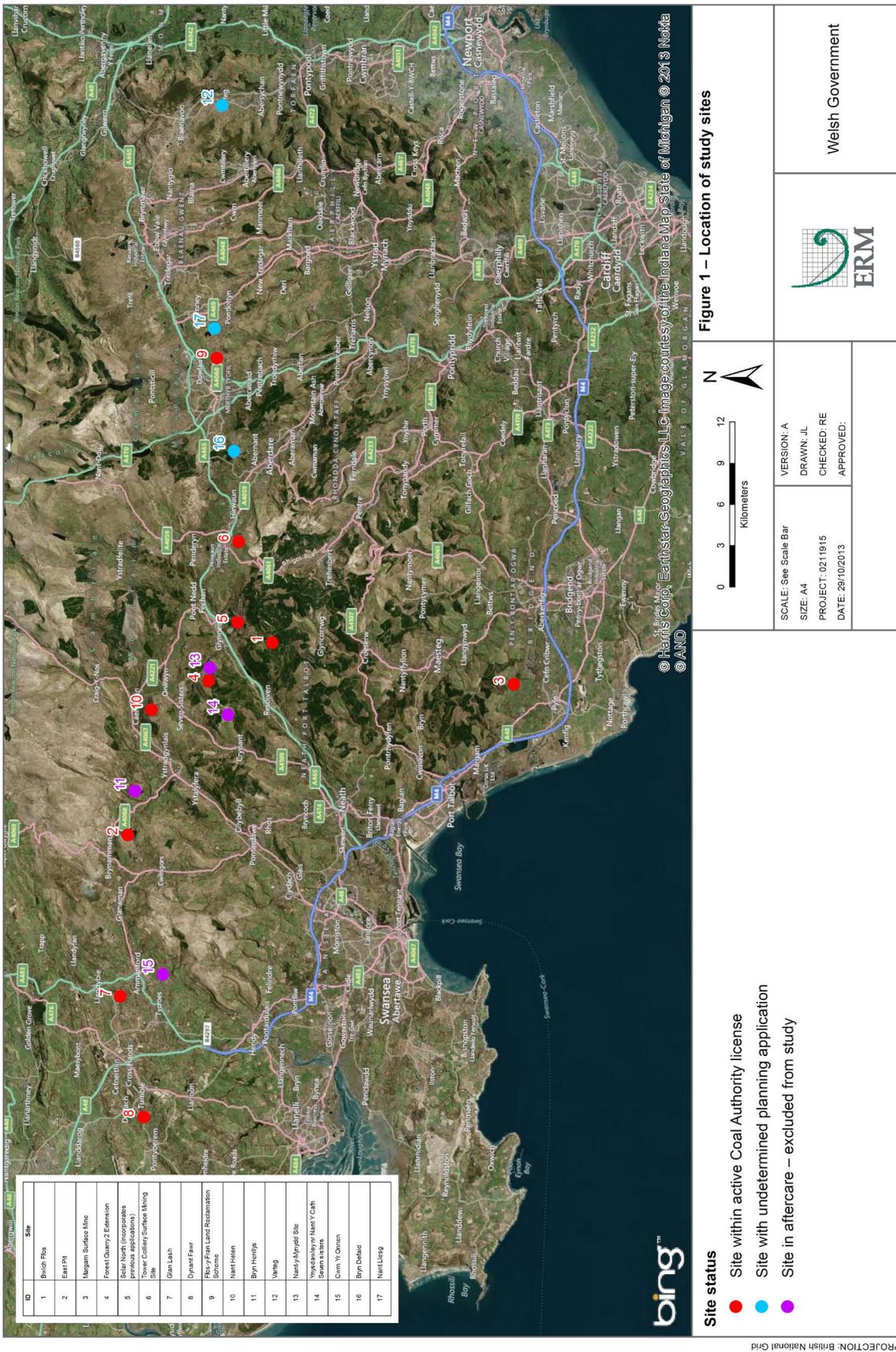


Figure 1 – Location of study sites

Path: C:\Users\john.lee\Documents\GIS_Data\0211915\Welsh Government\CoalMines\GIS_JL_REMAPS\0211915_CoalMinesLocations_A05.mxd

Map of opencast sites: **Research into the failure to restore opencast coal sites in South Wales** (Welsh Government, 2014)

Observations and conclusions

Four of the sites (Glan Lash, Nant-y-Mynydd, Bwlch Ffos and Selar) were not considered to pose a significant risk of not being restored.

Five larger sites (Ffos y Fran, Tower, Nant Helen, East Pit and Margam) were considered at risk of having insufficient bond cover at some stage of their operating life. A “smaller but significant” site at Dynant Fawr was “effectively abandoned in an unrestored state”.

The study found bonding and other mechanisms to secure restoration have been applied in a variety of different ways. Notably, for some sites, monies accrued fall short of the financial liabilities associated with restoration and aftercare to the agreed planning conditions.

Recommendations

Recognising that designing, accumulation, holding, management and phased release of a bond is a specialist and resource intensive activity, the report called for the establishment of a **virtual “Centre of Excellence”** to provide a pool of specialist services for Welsh restoration planning and bonding, and international best practice.

For sites at risk of not being restored in accordance with planning conditions, it suggested other measures may be needed. These may include **major redesign of site restoration, or change of after-use as a means of generating greater residual site value**. For sites at risk, it recommended a review of restoration and aftercare proposals to test whether alternative solutions could be implemented at lower cost.

The report also recommended a review of **MTAN2** be considered to identify where policy guidance could be modified to ensure future robust restoration bonds are consistent and appropriate. Additionally, it suggested drawing on lessons learned under Part 2A of the *Environmental Protection Act 1990*, where polluters or those with knowledge of contamination can remain liable for remediation, even after they sell a property or grant a long lease.

Coal Action Network report

In December 2022, the Coal Action Network published a report on **Coal mine restoration in South Wales** (the “Coal Action Network report”). It covered seven of the opencast mines that had also been examined in the Welsh Government’s 2014 study (East Pit, Ffos y Fran, Glan Lash, Margam, Nant Helen, Selar and Tower).

The research was primarily desk based, but also included in-person site visits in September 2022. For each site, the report outlined the:

- site address, operator and local authority;
- expected completion of restoration;
- cost of restoration;
- history of the site; and
- photographs from site visits.

An overview of these sites can be **[found later in this briefing paper](#)**.

The report “exposed”:

... the incomplete, hazardous, and poor state at sites where Councils claim restoration to be complete, as well as flagging renewed concerns for sites years behind their restoration deadline and with restoration schemes looming ahead.

It made a number of recommendations:

- A **fresh and independent assessment is needed** to cost proper remediation of poorly restored and unrestored opencast coal mines in south Wales (and across the UK). It’s then incumbent upon the Welsh and UK Governments to provide those funds to secure the restoration promised to local communities. A well-resourced and supported taskforce is needed to facilitate this and see restoration works through to completion.
- Key restoration decisions must be led by local communities and guided by the independent advice of Natural Resources Wales.
- Coal tips should be addressed together with voids remaining from opencast coal mining, rather than approached in isolation. *[Note: the previous Minister for Climate Change stated the **[upcoming coal tip Bill wouldn’t cover opencast mining sites](#)**].*
- In the interests of transparency and accessibility, all planning authorities should make all Planning Officers’ reports available online and clearly identifiable alongside associated planning documents.

4. Ffos y Fran: Wales' last opencast mine

The Ffos y Fran Land Reclamation Scheme was a major opencast coaling operation north-east of Merthyr Tydfil.

The site operator was **Merthyr (South Wales) Ltd** (previously Miller Argent), which is owned by Gwent Investments Limited, a privately owned family business based in south Wales. The scheme planned to extract 10 million tonnes of coal over 15 years starting from 2007, with the intention of using part of the revenue to redevelop the current former industrial workings into residential and recreational use.

The site licence expired in September 2022 and an application for a nine month extension was filed with Merthyr Tydfil County Borough Council (MTCBC). Following licence expiration, local residents reported the company had continued to illegally mine the site, breaching its planning controls. The extension application was refused in April 2023, meaning the site would close.

Following the vote to refuse the application, MTCBC issued an **enforcement notice** against the company. Coal Action Network asked the local authority to issue a “stop notice” ending the ongoing mining while the company appealed the enforcement notice. MTCBC refused. Neither they nor the Welsh Government issued a stop notice for the site. According to **Ministerial advice in July 2023**, Welsh Government officials discussed the case with local planning authority officers, and the attempt to progress restoration through the company was one reason why they did not serve a stop notice.

In August 2023, the company announced the mine would close by the end of November 2023, which it did.

Restoration

A **restoration plan for the site was published** back in 2015. This stated the future plan for the site was:

Urban common land for stock grazing, with public access for air and exercise. Bryn Caerau Farm will be returned to agricultural use, where disturbed, and nature conservation measures will be incorporated throughout the restoration scheme. The site will be predominantly restored to grassland and moorland vegetation associated with the open areas of the common.

Since closure of the site, concerns have been expressed over whether restoration will take place, and most recently over the **site filling with water**. It has been

reported that a **revised restoration plan for the site is expected in late autumn** this year.

In May and June 2023, the Senedd's **Climate Change, Environment and Infrastructure (CCEI) Committee** undertook an inquiry into the **restoration of opencast mining sites in Wales**, including a focus on Ffos y Fran.

In its evidence, **MTCBC stated** it has been in discussion with the site operator “for some time” about restoration of part of the site in accordance with the originally approved strategy as well as developing a revised strategy for the remainder of the site. The evidence contained two particularly important points relating to restoration:

1. Currently there is £15m in an escrow account for restoration of the site. *[Note: remediation costs are **estimated to be between £75m and £125m]***
2. One option if the operator fails to restore the site is major reconfiguration of the form of restoration for the site. This option is currently being explored. The site operator is currently preparing a future planning application to vary the restoration strategy, which would likely involve the retention of some of the overburdens and a water body in the void.

In October 2023, the **Coal Authority wrote to the Welsh Government** about restoration of the site, suggesting a number of failures on the part of MTCBC. Key points are outlined below:

- Despite advice and appropriate partnership support from the Coal Authority and others (including the Welsh Government) over many months, the Council has made very little visible progress in preparing for the closure and/or abandonment of the surface mine.
- There isn't a robust plan for the site's closure. For example, there was no understanding of how rising water levels would be managed, nor whether MTCBC could use the restoration bond held in escrow to manage site security if the operator went into liquidation.
- The Coal Authority will continue to take direct enforcement action in relation to mining beyond the licensed site boundary at Ffos y Fran.

In her **March letter to the CCEI Committee**, the previous Minister for Climate Change said the operator is reluctant to release details of its agreement with the local authority explaining how the escrow funds would be released. She continued “it remains a particular concern to me that the company is apparently unwilling to share information relating to the site's operation and condition”.

5. Other opencast sites in Wales

East Pit

The East Pit East revised site (Celtic Energy) in Gwaun-Cae-Gurwen, Neath Port Talbot, was granted consent in 2004. Completion of coal extraction was due in November 2012, with backfilling of the site by May 2015. Proposed after-uses for the site included general mountain and common grazing, improved agricultural land and scattered woodland. Additionally, longer term plans included a country park and a lake hotel/lodges. The **2014 report** outlined the bond for the site (£3 million) was inadequate, and could potentially lead to difficulty in achieving full restoration – although this was dependent on the actions of the developer and landowner. The 2004 consent was preceded by many years of mining at the site – with it having been mined since the coal industry was privatised in 1994. Initially mining was to cease at the site in December 2001.

Coal Action Network undertook a site visit to East Pit in September 2022. The report from the visit indicated a large lake sectioned off with barbed wire fences, and a steep sided coal face visible above the waterline in some places. There was an abandoned Celtic Energy compound, with oil drums, a warehouse, offices, and rusted shipping containers containing industrial equipment.

Glan Lash

The Glan Lash site (Bryn Bach Coal) in Llandybie, Carmarthenshire, was granted consent in January 2021. Following extraction of 21,500 tonnes of coal over a five year period, restoration of the site was due to be completed in December 2017, with a five year aftercare period to December 2022. The proposed after-use for the site was agriculture, woodland and ponds. The 2014 report stated no restoration bond or surety was held by the local authority.

The Coal Action Network report explained that Bryn Bach Coal submitted an application to extend the site in 2019. The extension was **refused** in September 2022.

The Coal Action Network's September 2022 site visit revealed the coal washery owned by the company is situated close to the site, and that since planning permission had expired the washery had been importing coal from elsewhere and selling it on. It also indicated fresh excavation was visible, the fencing around the top edge had been removed and laid further back, and at least one of the diggers in the mine was warm from activity that day.

Nant Helen

Consent for the Nant Helen site in Coelbren, Powys, was granted in 1998. Coal extraction was to be completed by 31 December 2018, and restoration by the end of June 2021. Following extraction proposed after-uses for the site were grassland and nature conservation areas. The bond for the site was incremental, standing at £6 million in 2014, rising to £30 million by September 2017. In the 2014 report, the local authority expressed concern that if the company was to cease operating prior to the full bond being in place there would be insufficient funds to cover restoration – and there may be insufficient funds in any case. The owners of the site were registered in the British Virgin Islands, leading to potential difficulties in taking enforcement action if needed.

Margam

Original consent for the Margam opencast site (Celtic Energy) in Kenfig Hill, Neath Port Talbot/Bridgend, was granted in 1999, and ceased coal extraction in October 2008. All coal was extracted from the site, and the proposed after-use included agriculture, nature conservation, wetlands and woodlands. The 2014 report states appeals and court proceedings were undertaken until late 2011, and that the position regarding enforcement and action was “complex”. The local authority held a £5 million restoration bond and, in relation to restoration, stated there were “potential problems although continuing discussion with landowner on other schemes – however no clear direction at this present time”.

The Coal Action Network report outlined that scaled down restoration of the site was completed in August 2018, with an aftercare period of five years. The original estimate for restoration was £58 million, but this was downgraded to a £5.7 million project. Pursuance of restoration was also delayed as Celtic Energy appealed to a Public Inquiry, then the High Court and Court of Appeal, all of which upheld the Council’s rejection of applications to extend the mine.

Selar

The Selar North site (Celtic Energy), in Glynneath, Neath Port Talbot, was granted consent in July 2010. The consent was granted for five years, with coal extraction to cease before August 2015. Following the extraction of 700,000 tonnes of coal, the proposed after-use of the site was mountain grazing, improved grasslands, woodland, wetlands with species enhancement, and management of a nature reserve. The 2014 report outlined the bond held by the local authority was £20m (to rise to £22m) and the local authority did not envisage any difficulties in achieving

final restoration of the site.

The Coal Action Network September 2022 site visit indicated that restoration appears to be complete, with the site in aftercare. However, it also reported that oil drums were leaking hazardous antifreeze, and long dead saplings planted as part of the restoration scheme have not been removed and replanted, suggesting the area was not well attended during aftercare.

Tower Colliery

The Tower opencast site (Tower Regeneration Ltd) in Hirwaun, Rhondda Cynon Taf, was granted consent in December 2011. A condition of the planning consent was that coal extraction was to cease seven years from commencement of extraction (March 2012) and restoration to be completed within eight years of the commencement of excavation. After-uses for the site included agriculture, nature conservation and an environmental resource centre. Surety was in place for the site – an initial £4 million, with the developer then required to pay £500,000 in advance each month, until a total of £10 million had been paid. The 2014 report outlined a potential issue with restoration, with the local authority expressing concerns that the developer may wish to reduce the costs of the final restoration works, which may result in works of a reduced standard being implemented.

The Coal Action Network site visit report described ongoing restoration: a large, fairly level area of exposed soil with vehicles working on it, and a digger reprofiling a hill.