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

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Planning Division

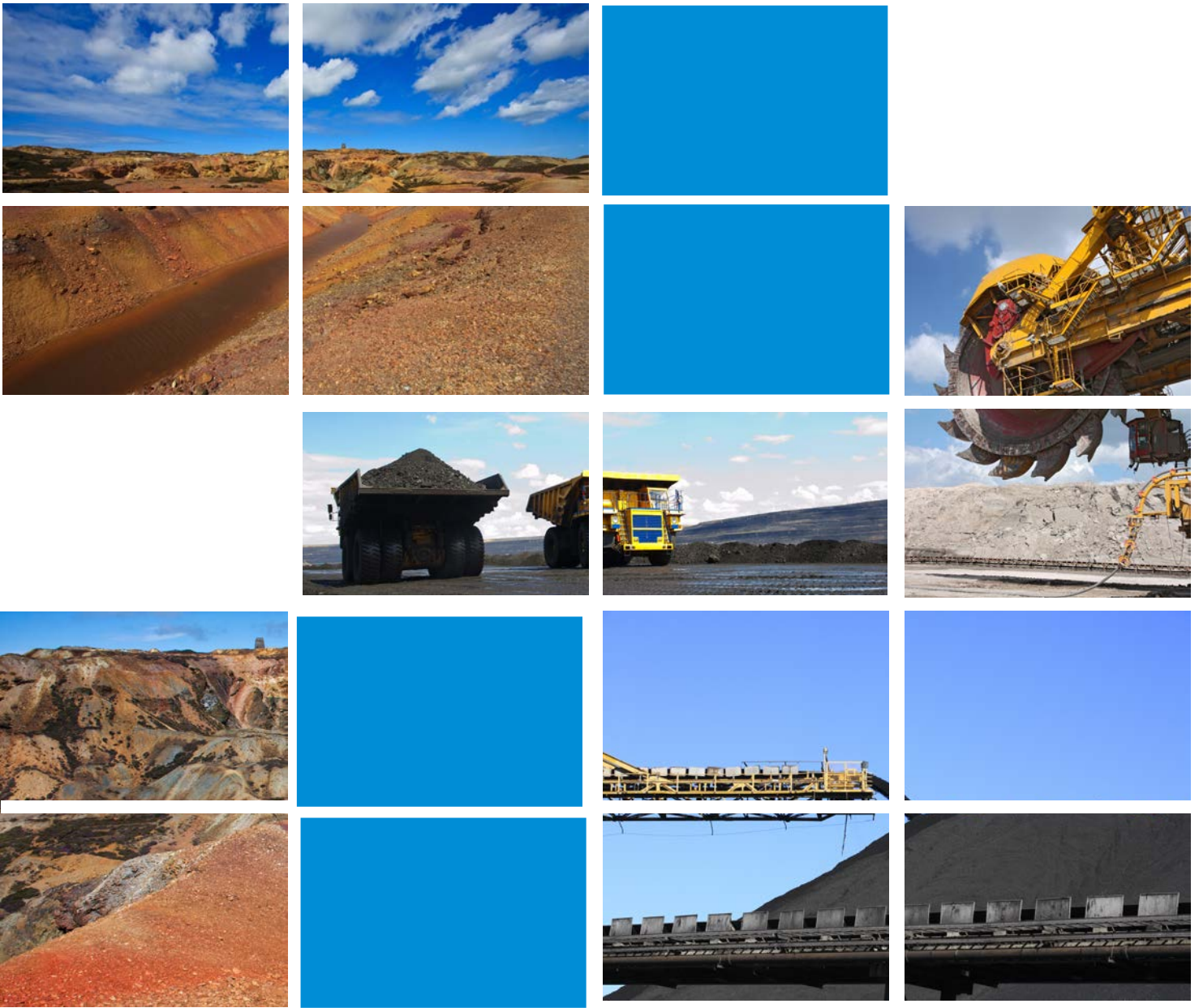
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Research into the failure to Restore Opencast Coal Sites in South Wales

2014

Research into the Failure to Restore Opencast Coal Sites in South Wales

Contract Ref: WG-PP/CR/13

Client: Welsh Government

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For and on behalf of
Environmental Resources Management

Approved by: Geraint Bowden

Signed:

Position: Partner

Date: 6th January 2014

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Crynodeb Gweithredol

Cafodd ERM orchymyn gan Lywodraeth Cymru i gynnal ymchwil i'r risg presennol a phosibl o waith adfer annigonol, a'r rhesymau posibl sy'n gysylltiedig â 'methiant i adfer'. Bydd yr ymchwil yn cynnwys pob safle glo brig arwyddocaol heb ei adfer yn y De, gan gynnwys:

- Safleoedd gweithio;
- Safleoedd segur ; and
- Safleoedd â chaniatâd cynllunio nad ydynt eto wedi dechrau.

Casglwyd data yn bennaf trwy holiadur, cyfarfodydd wyneb yn wyneb dilynol a gohebiaeth â'r holl Awdurdodau Cynllunio Lleol (ACLI) sydd â safleoedd o dan eu gofal. Cafwyd cyfarfod a gohebiaeth hefyd â'r Awdurdod Glo i gadarnhau telerau pob trwydded fyw.

Gwelwyd bod deg safle gweithio i gyd. Rhoddwyd hefyd ystyriaeth fras i bedwar safle sydd bellach wedi'u hadfer (ond sy'n derbyn ôl-ofal) a thri safle y gwnaed ceisiadau cynllunio ar eu cyfer ond na chafwyd penderfyniad yn eu cylch eto.

Cynhaliwyd adolygiad o bolisi cynllunio lleol a chenedlaethol i helpu'r broses o asesu safleoedd. Cynhaliwyd arolwg hefyd o arferion gorau a chanllawiau rhyngwladol a gwnaed argymhellion ynghylch sut y gellid diweddarau polisi yng Nghymru a defnyddio'r corff hwnnw o wybodaeth yn fwy effeithiol.

Y prif risgiau y ystyriwyd gan yr astudiaeth oedd y bondiau neu warantau hynny a ddelir gan yr ACLI sy'n annigonol o'i gymharu â'r hyn sydd ei angen i adfer safle yn unol â'r caniatâd cynllunio /Cytundeb Adran 106 pe adewid y safle heb ei adfer.

Yn gryno felly, nid oes risg arwyddocaol, yn ôl yr wybodaeth a gasglwyd, o safbwynt bond na gwarant pedwar o'r safleoedd. Fodd bynnag, ar sail yr wybodaeth a gasglwyd, mae'n bosibl na fydd digon o fond gyda phump o'r safleoedd mwy ryw adeg yn ystod eu hoes gwaith, ac mae safle bychan ond pwysig yn Nynant Fawr, Sir Gaerfyrddin i bob pwrpas wedi'i adael heb ei adfer.

Mae'r prif sylwadau, casgliadau ac argymhellion wedi'u crynhoi isod:

Prif Sylwadau a Chasgliadau:

- Mae'r amodau'n anodd ar gyfer y farchnad glo domestig, gyda chynnydd yn y gystadleuaeth oddi wrth fewnforion; mwy o reoliadau ar lo mewn pwerdai thermol a mesurau rheoli manylach ar gynnal ac adfer safleoedd. Mae'n anorfod bod yr amodau hyn yn rhoi pwysau ar agweddau ar gloddio nad ydynt yn cynhyrchu refeniw, fel gwaith adfer;

- Defnyddir bondiau a dulliau eraill i adfer tir mewn sawl ffordd. Ar gyfer y rhan fwyaf o safleoedd, mae'r arian sydd wedi'i grynhoi hyd yma yn llai na'r rhwymedigaethau ariannol ar gyfer y gwaith adfer ac ôl-ofal yn yr amodau cynllunio. Mae heriau ychwanegol yn gysylltiedig â safleoedd a weithiwyd o dan Gyfryngau at Ddibenion Arbennig o safbwynt y risg adfer. Mae'n bwysig bod awdurdodau cynllunio'n defnyddio canllawiau arfer gorau manwl wrth ymdrin â bondiau;
- Yn ôl arolwg o bolisi mae gan ganllawiau rhyngwladol ac arferion gorau mewn rhai ffyrdd ddiffiniadau cliriach a mecanweithiau cadarnach ar gyfer adfer tir, er enghraifft:
 - Mae'r International Finance Corporation wedi cynhyrchu safonau perfformiad ar gyfer cau ac adfer safleoedd sy'n disgrifio gofynion Cynlluniau Cau, a'r offer ariannol y gellid eu defnyddio i ysgwyddo costau cau unrhyw adeg yn oes y prosiect, gan gynnwys ei gau'n fuan. Mae'n argymhell ei gyllido trwy naill ai system crynhoi arian (cytundeb ysgrow wedi'i ariannu'n llawn neu gronfa ad-dalu) neu warant ariannol gan sefydliad ariannol dibynadwy;
 - Mae "*Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A Toolkit to Assist Government Agencies*" gan Fanc y Byd yn cynnig fframwaith i gefnogi datblygiad dulliau hyblyg ond systematig ar gyfer rheoleiddio prif rannau cynllun datgomisiynu a chau cynaliadwy gan roi pwyslais pellach ar bwysigrwydd "*capacity building and training of their technical staff, ... to ensure consistent implementation of best practice guidelines*"; ac
 - Mae'r gymuned gloddio ryngwladol yn rhoi mwy o bwyslais yn gyffredinol ar gynllunio yn gynnar ac yn fanwl ar gyfer cau mwynglawdd nag yr ydym ni yng Nghymru, ac yn rhoi llawer mwy o bwyslais ar agweddau cymdeithasol cau mwynglawdd. Daw manteision o hybu mwy o ymgynghori ar gau mwynglawdd a beth i'w wneud â hi ar ddechrau proses gynllunio'r fwynglawdd, fel rhan o'r gofyn am gynllunio trylwyrach ar gyfer adfer.

Prif Argymhellion :

- Mae dylunio, crynhoi, dal, rheoli a rhyddhau bond yn brosesau arbenigol sy'n drwm ar adnoddau. Gwelwyd enghreifftiau o gydweithio clodwiw yng Nghymru, gydag ACLlau yn defnyddio arbenigeddau awdurdodau cyffiniol sy'n fwy cyfarwydd ac sydd â mwy o brofiad o brosiectau glo brig.

Gallai sefydlu 'Canolfan Ragoriaeth' fod yn ffordd i ddod ag arbenigwyr o Gymru a'r byd ynghyd o safbwynt cynlluniau cloddio, bondiau, cau ac adfer. Gallai'r Ganolfan fod yn rhith-ganolfan sy'n rhoi cyngor ymarferol, cyson ac arbenigol ynghylch ceisiadau am ganiatâd cynllunio, bondiau, cynlluniau cau ac adfer a mesurau gorfodi. Un o brif rolau'r Ganolfan fyddai rhoi cyngor ar bolisi a datblygu arweiniad ar arfer gorau, gan ddefnyddio'r corff anferth o brofiad rhyngwladol sy'n bod; a

- Ar safleoedd lle ceir risg na chânt eu hadfer yn unol â'u hamodau cynllunio, efallai y bydd yn rhaid ystyried mesurau eraill. Gallent olygu ail-lunio cynllun adfer y safle neu'r cynllun ôl-ofal er mwyn cynyddu gwerth y safle. Ar gyfer safleoedd mewn perygl o'r fath, dylid cynnal adolygiad o'r cynigion adfer ac ôl-ofal i weld a oes yna bethau eraill y dylid eu gwneud er mwyn lleihau cost y gwaith adfer. Yn yr Alban (lle cafwyd problemau tebyg â gwaith adfer), gallai corff o'r enw the Scottish Mines Restoration Trust dyfu'n gyfrwng effeithiol i ddatblygu atebion cyfaddawd. Gellir ystyried buddiannau sefydlu corff o'r fath yng Nghymru (efallai fel rhan o'r Ganolfan Ragoriaeth); a
- Dylid ystyried cynnal adolygiad o Nodyn Cyngor Technegol Mwynau (Cymru) 2: Glo, 2009. Amcan yr adolygiad yw edrych sut y gellid gwella'r cyfarwyddyd polisi i sicrhau bod bondiau adfer cadarn yn y dyfodol yn cael eu cyfrif ar sail gyson a phriodol a bod trefniadau'n bod i sicrhau bod y bondiau'n para'n briodol ar hyd oes y prosiect (trwy adolygiad blynyddol er enghraifft). Hefyd, dylid ystyried y posibilrwydd o ddefnyddio pwerau deddfu i gryfhau'r ddeddfwriaeth bresennol er mwyn dwyn perchnogion glofeydd i gyfrif am beidio â chadw at y cynllun adfer, hyd yn oed ar ôl gwerthu safle. Gallai'r egwyddor 'y llygrwr sy'n talu' sy'n sylfaen i *Ran 2A Deddf Diogelu'r Amgylchedd 1990* fod yn fodel ar gyfer adfer. Dylid gofyn am farn gyfreithiol o fewn Llywodraeth Cymru gan fod hynny y tu allan i gwmpas yr astudiaeth hon.

EXECUTIVE SUMMARY

ERM was instructed by the Welsh Government to carry out a research into current and potential risks relating to inadequate restoration, and potential reasons associated with 'failure to restore'. The scope of the research was to include all significant unrestored opencast coal sites in South Wales, including:

- Active sites;
- Inactive sites; and
- Sites with planning permission which have yet to commence.

Data were collected principally via a questionnaire survey and follow-up face to face meetings and correspondence with all of the Local Planning Authorities (LPAs) with sites within their jurisdiction. A meeting and correspondence was also undertaken with the Coal Authority to confirm the terms of all active licences.

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

A review of local and national planning policy was undertaken in order to inform the site assessments. In addition, a review of international guidance and best practice was undertaken and recommendations made on how policy in Wales might be updated to more effectively draw from that body of information.

The key risks the research sought to identify was where the bond or surety held by the LPA falls short of that level which might be required to restore a site in accordance with the planning permission / Section 106 Agreement, should the site be abandoned or left unrestored.

In summary, four of the sites do not, based on the collected information, pose any significant risk in terms of bonding or surety. However, based on the collected information, five of the larger sites may have insufficient bond cover at some stages of their operating life, and a smaller but significant site at Dynant Fawr, Carmarthenshire has effectively been abandoned in an unrestored state.

Key observations, conclusions and recommendations arising are summarised as follows:

Key Observations and Conclusions:

- Market conditions for domestic coal are challenging with increased competition from imported coal / gas, greater regulations over the use

of coal within thermal power plants and more defined regulatory controls over site operation and restoration;

- Bonding and other mechanisms to secure restoration have been applied in a variety of different ways. For some sites, monies accrued to date fall short of the financial liabilities associated with restoration and aftercare to the agreed planning conditions. Sites which are operated by Special Purpose Vehicles pose additional challenges in terms of restoration risk. Detailed best practice guidance in terms of bonding is required for use by planning authorities;
- A review of policy has identified that international guidance and best practice has, in some aspects, a more clearly articulated approach and more robust mechanisms to achieve restoration, for instance:
 - The International Finance Corporation has produced a Performance Standard on closure and restoration which outlines the requirements of a Closure Plan, and the financial instruments that should be used to cover the cost of closure at any stage of project life, including early closure. It recommends that funding should be by either a cash accrual system (fully funded escrow or sinking funds) or a financial guarantee by a reputable financial institution;
 - The World Bank's *"Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A Toolkit to Assist Government Agencies"* provides a framework to support the development of flexible but systematic regulatory approaches to key components of a sustainable decommissioning and closure planning and implementation and further emphasises the importance of *"capacity building and training of their technical staff, ... to ensure consistent implementation of best practice guidelines"*; and
 - The international mining community generally places greater emphasis on early and detailed planning for closure than is the case in Wales, with notably more emphasis on the social aspects of mine closure. There would be benefit in promoting more public consultation on mine closure and after-use at the mine planning stage, as part of a requirement for more rigorous requirements for restoration planning.

Key Recommendations:

- It is evident that designing, accumulation, holding, management and phased release of a bond is a specialist and resource consuming activity. Some commendable collaborative working has emerged in Wales, with LPAs using the expertise

of an adjoining authority which has more familiarity and experience with opencast projects. It could be beneficial to establish a virtual 'Centre of Excellence' to provide a pool of specialist services in terms of Welsh restoration planning and bonding and International best practice; and

- For sites at risk of not being restored in accordance with planning conditions, other measures may need to be considered. These may involve major re-design of site restoration, or change of after-use as a means of generating greater residual site value. For sites at risk a review should be undertaken of restoration and aftercare proposals to test whether potentially alternative solutions could be employed if necessary to deliver restoration at less cost. In Scotland, (where similar issues with restoration have emerged) a recently established body called the Scottish Mines Restoration Trust might be effective in brokering compromise solutions. A similar body could be considered in Wales (potentially as part of the Centre of Excellence); and
- Consideration should be given to a revision of Minerals Technical Advice (Wales) Note 2: Coal, 2009. The objective of the review would be to identify where policy guidance could be modified to ensure future robust restoration bonds are on a consistent and appropriate basis and mechanisms are in place to ensure these bonds remain accurate throughout project lifecycle (for instance via an annual review). Additionally it would be worthwhile drawing on lessons learnt under *Part 2A of the Environmental Protection Act 1990* where polluters or those with knowledge of contamination can remain liable for 'remediation' (restoration in this case) even after they sell a property or grant a long lease.

1 INTRODUCTION

1.1 TERMS OF REFERENCE

ERM was instructed by the Welsh Government (WG) to carry out a research project to assess the current and potential risks relating to inadequate restoration, and potential issues associated with 'failure to restore' in alignment with granted planning permissions. The scope of the research covers all significant unrestored opencast coal sites in South Wales including active, inactive and sites with planning permission which have yet to commence. This research builds on previous research¹ undertaken by the Welsh Government including previous recommendations.

In summary, the terms of reference for this research are as follows:

- To describe the current operational position of all active and inactive opencast coal sites in the South Wales coalfield and those permitted sites where operations have not yet commenced;
- To identify the agreed restoration schemes and assess the likelihood of successful restoration;
- Where it appears that adequate restoration is at risk, or unlikely to be delivered, to provide a brief assessment of options and risks; and
- To evaluate the factors which reduce the likelihood of successful restoration and to suggest changes to best ensure successful restoration in the future.

1.2 LIMITATIONS

This report has been prepared using information collected from the Coal Authority and Local Planning Authorities based on the questionnaire contained within Annex A, the questionnaire returns (Annex B) and subsequent meetings. Estimates of site specific risks and costs associated with restoration are accordingly limited by that information. Furthermore, any estimation of liabilities associated with restoration is only provided for context to broadly identify the order of magnitude of potential risks and should not be relied upon for any other purpose.

The study does not draw any conclusions as to the commercial strength or viability of the various operators of the sites covered within this report, but seeks to assess whether a financial shortfall would exist if an operator was to fail, or abandon the site. Without a detailed design, accurately measured

¹ Harris, K., Higgs, J. and Thompson, A. (2009): The Restoration and Aftercare of Coal and Aggregates Workings in Wales. Report to the Welsh Assembly Government. Published by Capita Symonds Ltd., East Grinstead

quantities and a timescale, the assessment of that potential shortfall can only be an approximate estimate of the cost of completing the coal extraction and restoring the site, or restoring the partly or fully extracted site, in accordance with the planning permission.

In terms of the mechanism and legalities associated with bonding, WG should seek legal advice on site specific requirements because this is out with the consideration of this report.

1.2.1 Confidentiality

Care was taken throughout this research project to maintain an appropriate degree of confidentiality, as requested by the Local Planning Authorities. The disclosure of data contained within the questionnaire responses has been avoided, thereby providing anonymity.

1.3 INTRODUCTION – THE SOUTH WALES COALFIELD

The fringe outcrops of the South Wales Coalfield contain significant reserves of good quality coal which are well suited to extraction by opencast methods. These reserves have been worked at their outcrops for centuries, but these workings had been small in scale until the advent of large mechanised plant. The large scale extraction of coal in Wales through much of the 19th and 20th centuries was therefore carried out by deep mining, mostly via shafts to the deeper reserves or by drift mines near the outcrops.

Since the Second World War, the availability of larger plant has seen a gradual increase in the scale and depth of a series of opencast coal operations, with as many as ten sites operating at any one time. Following the run-down of deep mining, particularly through the 1980s and 1990s, the opencast operations in South Wales have become the source of the majority of coal worked in the area, with the bigger sites containing about 10 million tonnes, and having depths of excavation as great as 200 m.

Coal produced in South Wales competes in a global market against coal from as far away as South America, Russia, South Africa, Australia and the USA. Its proximity to domestic markets has an inevitable cost saving in haulage and its home origin provides employment and assists the balance of payments. However, its geological disposition, demanding working conditions and typically the requirement for high quality restoration on completion pose challenges to competitiveness.

Coal quality and labour costs apart, the strongest competition to South Wales coal tends to come from those regions possessing thick, continuous seams with low overburden-to-coal ratios, in relatively flat and even terrain with low rainfall and low water tables. Most of the cost in opencast coal operations is that of bulk earthmoving, and the types of reserves outlined above can be worked in a simple sequence of adjoining cuts, so reducing double handling of materials, both of surface materials preserved for re-establishment of

vegetation, and of the bulk excavation. For example, whereas a single-cut operation involves almost total double handling and cost, an operation involving 10 sequential cuts could see double handling limited to about 20% of the material. In even larger, more extensive sites, that proportion of double handling falls further still.

Furthermore, some of the international sites are at remote locations advantageous because operators do not have to constrain their activities to protect nearby populations and businesses, particularly in terms of working hours, noise and dust.

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 (CA). Prior to that privatisation, mineral rights to all coal reserves and most of its extraction had been controlled and managed by The National Coal Board (NCB) (later renamed British Coal). Exceptions to NCB control and management were small private licenced mines which extracted coal near outcrops, usually by drift mining, and the private operation of small licenced opencast sites, or coal arising incidental to civil engineering earthworks. The small licenced opencast mining sites were limited to 25,000 tonnes of coal, which was allowed if it did not form part of a larger strategic reserve. An increase in yield arising from thicker seams or less historic extraction, could result in that initial limit being increased.

The larger sites, which were managed directly by British Coal, were the subject of competitive bids by specialist contractors. Payment to the successful contractor was at an agreed rate per tonne, (but adjusted, based upon a formula linked to fluctuations in labour, fuel and materials costs). British Coal also held a "*restoration lump sum*" which was similarly adjusted, but 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 bond¹ 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 they 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 in 1995, 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. The operating sites ranged from older sites with little or no coal remaining, but requiring significant restoration, to relatively new sites holding significant reserves to be extracted.

¹ Bonds, or financial guarantees, are required in relation to coal mines and opencast workings in South Wales under the Dyfed Act, 1987 and the Glamorgan Acts, 1987.

Subsequently, new opencast sites have been developed by a number of operators, for example Celtic Energy, Tower Regeneration and Miller Argent.

Celtic Energy Ltd, the new private operator, was bound by conditions of planning permissions 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 in 1995. Sites and site extensions obtaining planning permission since 2005 have been the subject of various types of restoration bond and with varying amount of monies accrued.

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. Scotland is experiencing just such a situation, where Scottish Coal Ltd is in liquidation with up to 20 opencast sites awaiting restoration, but with inadequate financial provision in place to restore sites in accordance with conditions agreed in the planning permissions.

The Welsh Government has commissioned this study to assess the current situation in Wales and to gain a deeper understanding of whether successful restoration may be at risk at some sites due to the increasingly challenging market conditions for the end product.

1.4

REPORT STRUCTURE

This report is structured as follows:

- Section 2 – Methodology;
- Section 3 - Planning Policy and International Best Practice Guidance;
- Section 4 - Results; and
- Section 5 – Conclusions and recommendations.

It contains the following annexes:

- Annex A – LPA questionnaire;
- Annex B – Questionnaire results
- Annex C – Coal Authority data;
- Annex D – Minutes from Coal Authority meeting; and
- Figure 1 – Sites considered within the research.

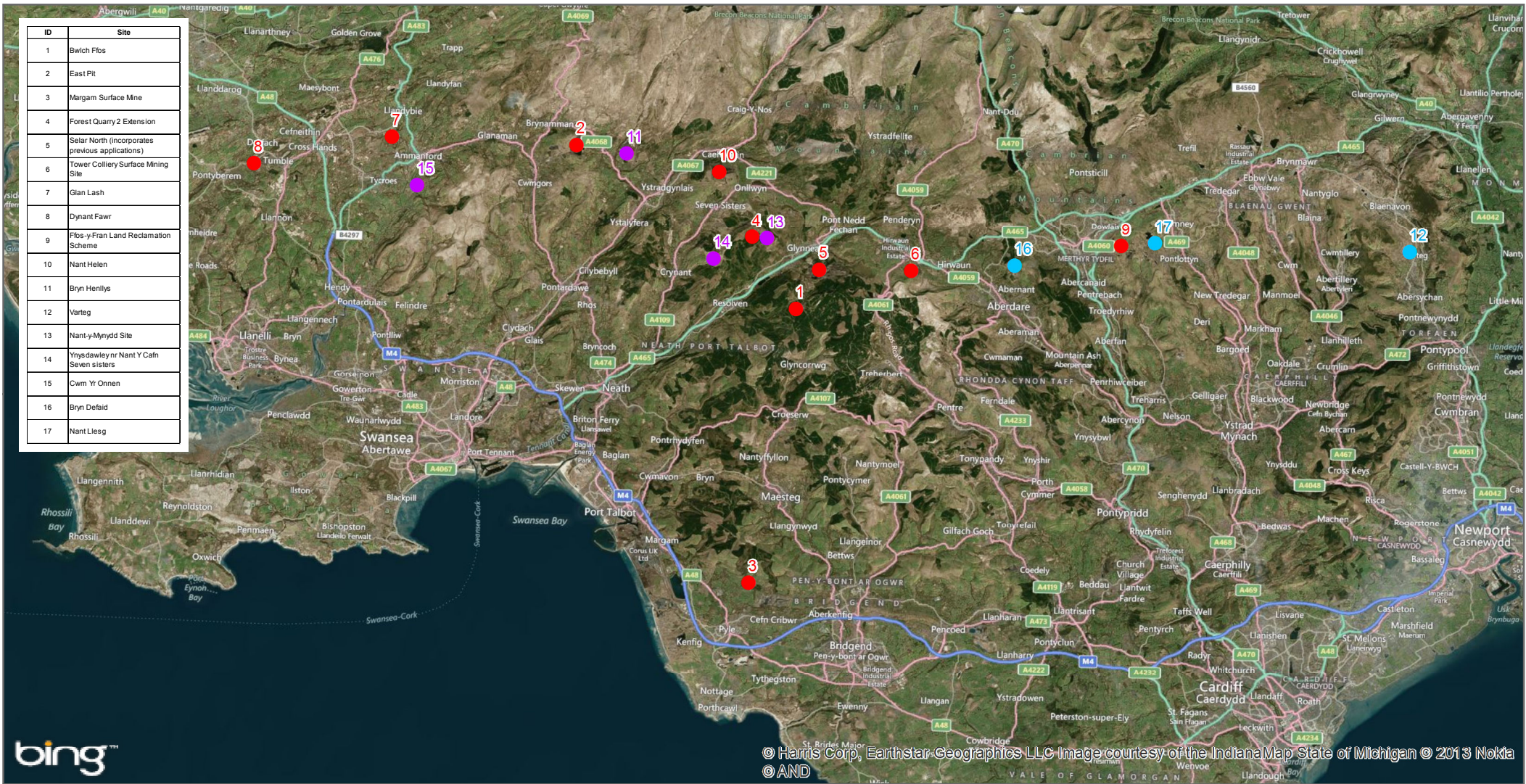
2.1 *INTRODUCTION*

ERM initially met with the Welsh Government and jointly developed a list of operational and potential (those with undetermined planning applications) opencast sites in South Wales. These sites were then matched to the applicable jurisdiction of various Local Planning Authorities (LPA). The LPAs were central to this research as they control and coordinate not only the planning process, but also many of the development / environmental controls applied to operation and restoration.

The following LPAs were identified as having one or more opencast sites within their jurisdiction and thus were contacted as part of this this research:

- Carmarthenshire County Council;
- Neath Port Talbot County Borough Council;
- Rhondda Cynon Taf County Borough Council;
- Bridgend County Borough Council;
- Powys County Council;
- Merthyr Tydfil County Borough Council;
- Torfaen County Borough Council; and
- Blaenau Gwent County Borough Council.

Within these jurisdictions, a total of ten active sites were identified. Additionally, this study has given some broad consideration to four sites which are now restored (but in aftercare) and three sites where the planning applications have yet to be determined. The location of the sites is shown on Figure 1 below.



Site status

Site within active Coal Authority license

Site with undetermined planning application

Site in aftercare – excluded from study

036912

Kilometers

SCALE: See Scale Bar

VERSION: A

SIZE: A4

DRAWN: JL

PROJECT: 0211915

CHECKED: RE

DATE: 29/10/2013

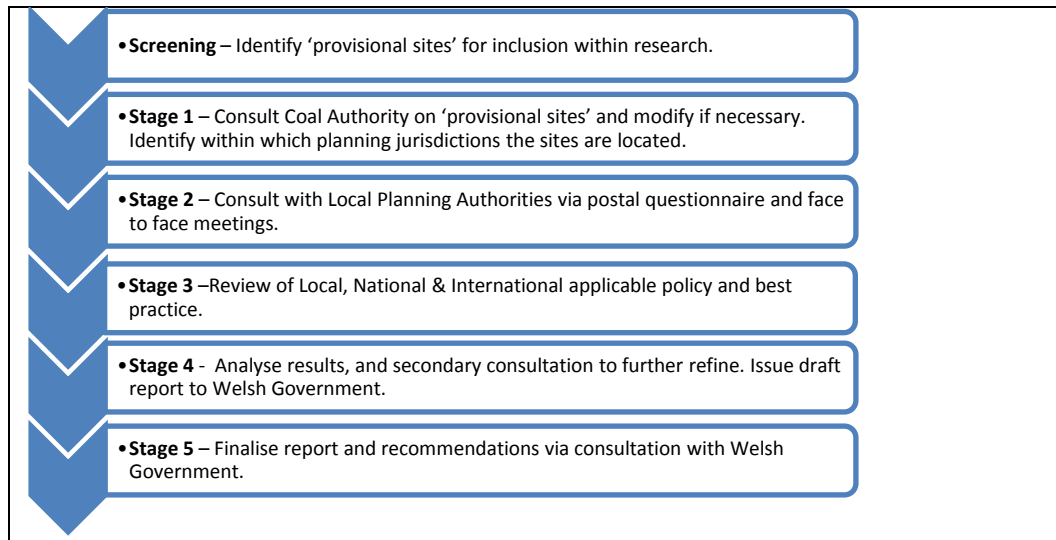
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After this initial scoping of sites our adopted method was divided into five different tasks as shown graphically in *Figure 2* below and described in detail below.

Figure 2 – Summary of Research Process



2.1.1

Task 1 – Consultation with the Coal Authority

ERM wrote to the Coal Authority (CA) with our provisional list of candidate sites and asked:

- Whether there were additional sites which had not been identified on the list;
- For a summary of all CA licences for opencast sites in South Wales;
- The extent and status of their sites. The CA confirmed the sites listed in the table below. From the list of sites it was identified in which LPA the sites were located.

A meeting was then held with the CA to gain a comprehensive understanding of the current and historic situation. We also discussed options for remediating present situations and what measures they have taken or can take when granting a licence to increase the probability of successful restoration. The notes arising from this meeting are presented in Annex D and data received from the CA in Annex C.

Table 2.1 Sites covered by this Research

Site	Operator	Location
Sites within 'active' Coal Authority licences.		
Bwlch Ffos	Horizon Mining Ltd	Resolven, Neath Port Talbot
East Pit	Celtic Energy Ltd	Gwaen-Cae-Gurwen, Neath Port Talbot
Margam Surface Mine	Celtic Energy Ltd	Kenfig, Neath Port Talbot
Forest Quarry 2 Extension ¹	Horizon Mining Ltd	Also split with Bridgend
Selar North (incorporates previous applications)	Celtic Energy Ltd	Neath Port Talbot
Tower Colliery Surface Mining Site	Tower Regeneration Ltd	Glynneath, Neath Port Talbot
Glan Lash	Bryn Bach Coal Ltd	Hirwaun, Rhondda Cynon Taff
	Dynant Fach Colliery	Llandybie, Carmarthenshire
Dynant Fawr	Company Ltd (Dissolved)	Tumble, Carmarthenshire
Ffos-y-Fran Land	Miller Argent (South Wales)	
Reclamation Scheme	Ltd	Cwmbargoed, Merthyr Tydfil
Nant Helen	Celtic Energy Ltd	Coelbren, Powys
Sites with planning application submitted but not yet to be determined; excluded from study.		
Varteg ²	Glamorgan Power Company Ltd	Varteg, Torfaen
Nant Llesg	Miller Argent (South Wales)Ltd	Rhymney, Caerphilly
Bryn Defaid, Aberdare	Celtic Energy Ltd	Aberdare, Rhondda Cynon Taff
Sites in aftercare; excluded from study.		
Bryn Henllys (or BBNO)	Celtic Energy Ltd	Cwmtwrch, Powys
		Ammanford, Neath Port Talbot and Carmarthen County Council
Cwm-yr-onnen, Nant-y-Mynydd Site	Bryn Bach Coal Co Ltd	
Ynysdawley nr Nant Y Cafn	Energy build Ltd	Glynneath, Neath Port Talbot
Seven Sisters	Newscheme Ltd	Seven Sisters, Neath Port Talbot

2.1.2 Task 2 – Liaison with Local Planning Authorities

In acknowledgement that the principal source of information for this part of the research would be the LPAs, ERM developed a postal questionnaire with questions focused on sites within their jurisdiction. This questionnaire was issued in advance of a face to face meeting and the questionnaires were returned via email. A number of follow-up questions were also posed to clarify some points. A copy of the questionnaire form is included in Annex A and responses in Annex B.

A key objective of this task was to determine the status of each of the sites and their planning consents and the presence or absence of a restoration bond or guarantee. It was also determined at what stage of development each site was

¹ Adjacent and incorporating part of the Nant Y Mynydd site) (Horizon Mining Ltd) (incorporates Sarn Helen).

at and approximate remaining coal assets and this was compared to data provided by the CA in the context of licence or royalties. Additionally, ERM endeavoured, via dialogue with the LPAs, to assess restoration need and estimate approximate cost, subject to sufficient information being available. It should be noted that a full in-depth risk based analysis was not conducted as it was not required as part of the specification.

It should also be noted that the planning permission boundaries for each site, significantly exceed the area of the CA extraction licences, and the tonnages of coal extracted varied between the LPAs and the CA. This is because CA licences and their extensions do not match closely to planning permissions and their extensions. However, there was close agreement between the LPAs and the CA regarding the amount of coal remaining to be extracted from each site.

2.1.3 *Task 3 – Review of Planning Policy, Planning Permissions and International Best Practice*

A review of relevant planning policy in Wales was undertaken (See Section 4) as well as a review of applicable local policy and guidance, long-term mineral restoration and after-use strategies for each of the LPAs if available.

Additionally, a review of applicable international policy, standards and best practice with regard to mine closure and restoration was undertaken.

2.1.4 *Task 4 – Finalisation of Research and Iterative Dialogue with the Welsh Government*

Once the above activities were completed, a draft report was developed with the objective of aligning recommendations with Welsh Government internal procedures and processes. The findings of the report were then discussed at a face to face meeting.

2.1.5 *Task 5 – Final Report and Recommendations*

Based on the draft report and the meeting with the Welsh Government the final report then assessed and detailed restoration needs and costs for each site, including the potential implications of any funding shortfall, but not the standing or capacity of an operator to meet and honour their liabilities. Reporting investigated potential worst case scenarios and likely outcomes and possible remediation and / or mitigation measures.

The report also considered changes in legislation, policy or other ways to ensure that future opencast coal mines in Wales are successfully restored.

The report has considered, at a high level, the scope for mitigating funding gaps that have been identified. This has been done through examination of the potential for:

- Extension of coaling;
- Change of planning / restoration conditions; and
- Change of end use to simplify restoration or generate income from enhanced site value.

The report also makes an evaluation of recommendations for future consents in relation to Bonds, Parent company guarantees and Protective Covenants on transfer of lands or assets.

3 **POLICY, BEST PRACTICE GUIDANCE AND LOCAL PLANNING CONTEXT**

3.1 **INTRODUCTION**

This section examines the relevant policy and best practice in relation to restoration and aftercare of mineral extraction operations. This is done by examining policy and guidance on a national and local level from the Welsh Government down to the LPAs responsible for each site. International best practice and guidance from various leading mining organisations and governments was also examined.

3.2 **NATIONAL PLANNING POLICY AND GUIDANCE**

3.2.1 ***Planning Policy Wales, 2008***

The principal planning document in Wales is *Planning Policy Wales (PPW) (Edition 5, November 2012)*¹. It sets out the land use planning policies of the Welsh Government and it is supplemented by a range of *Technical Advice Notes (TANs)*. The core aim of the document is embed the objectives of sustainable development within the land use planning process.

3.2.2 ***Minerals Planning Policy Wales, 2001***

Minerals Planning Policy Wales (MPPW) sets out guidance on land use planning policy for mineral extraction and related development in Wales. This includes all minerals and substances in, on or under land extracted by underground or surface extraction techniques.

The guidance should be considered by Mineral Planning Authorities (MPAs)² in their preparation of LDPs (formerly Unitary Development Plans). It can be material in decisions for individual planning applications, including mineral review applications. It will be taken into consideration by the Welsh Government and Planning Inspectors when determining ‘called-in’ applications in Wales and planning appeals.

Section D in Part 1 of the Policy deals with the achievement of restoration, aftercare and beneficial after-use including financial guarantees. The stated aim regarding restoration is “*To achieve a high standard of restoration and aftercare, and provide for beneficial after-uses when mineral working has ceased*”.

¹ <http://wales.gov.uk/docs/desh/publications/121107ppwedition5en.pdf>

² The Authorities with responsibility for planning control regarding minerals, and relates to county or county borough councils and national park authorities.

Section D states that unless new opencast planning applications provide for satisfactory and suitable restoration, planning permission should be refused. It goes on to state that *“reclamation can provide opportunities for creating, or enhancing, sites for nature conservation and contribute to the targets in the UK Biodiversity Action Plan and those adopted in local Biodiversity Action Plans throughout Wales”*. It also emphasises that due to the *“long life of many mineral working sites, it is essential that progressive restoration is introduced at the earliest opportunity where appropriate and practicable”*.

3.2.3 **Minerals Technical Advice (Wales) Note 2: Coal, 2009**

The Minerals Advice Note Wales outlines detailed advice on mechanisms for coal extraction policy delivery for both surface and underground mining techniques by MPAs and the coal mining industry. It should be read in conjunction with the MPPW set out above. The note contains a section on restoration and aftercare titled ‘Achieving a high standard of restoration, aftercare, and after-use’. Appendix Q of the note contains an outline of best practice for reclamation.

Appendix Q states that LPA 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”*.

Appendix Q states that formal reclamation (or restoration) schemes should:

- Be discussed with the LPA and the statutory consultees before submitting the planning application;
- Be subject to a feasibility study;
- Accompany the planning application;
- Be well-designed;
- Indicate how restoration and aftercare is to be integrated with the working scheme;
- Demonstrate the suitability of the proposed after-use;
- Give consideration to the potential impacts of the reclamation proposals on adjacent land;
- Be suitable for the intended after-use;
- Generally compatible in nature and scale with the natural landform of the area;
- Not be liable to slope instability or other ground movement;

- Include a management plan; and
- Be agreed and included in planning conditions and agreements, with a detailed specification of works to be submitted.

3.2.4 *Mineral Planning Guidance*

*Mineral Planning Guidance notes*¹ were published between 1988 and 1995 by the Welsh Office and Department of the Environment (prior to devolution). Some of them remain in force in Wales in a partial capacity.

The Mineral Planning Guidance Note 2 provides guidance on applications, permissions and conditions regarding mineral working. It includes a short section on restoration and aftercare which is stated to be one of the most important conditions.

3.2.5 *The Town and Country Planning Act 1990 (as amended)*

The main statutory controls over land use in Wales are outlined in the:

- Town and Country Planning Act 1990 (TACP 1990)²;
- Planning and Compulsory Purchase Act 2004³; and
- Planning Act 2008⁴.

All mineral workings are required, under Schedule 5 of the TACP 1990 to be subject to conditions relating to the restoration and aftercare of mineral sites. Restoration conditions are defined as those “*requiring that after operations for the winning and working of minerals have been completed, the site shall be restored by the use of any or all of the following, namely, subsoil, topsoil and soil-making material*”. Aftercare conditions are defined as those which “*the mineral planning authority think fit requiring that such steps shall be taken as may be necessary to bring land to the required standard for whichever of the following uses is specified in the condition*”.

If restoration and aftercare proposals submitted by an operator to support a planning application are considered to be inadequate, the LPA may refuse permission on those grounds. Where the project is permitted, the LPA has the authority to monitor compliance and to use enforcement powers to see that conditions are adhered to. Where appropriate, restoration and/or aftercare requirements may be set out in legally binding agreements (planning obligations), under Section 106 of the TACP 1990. Where an operator fails to comply with restoration conditions or obligations despite enforcement action,

¹ <http://wales.gov.uk/topics/planning/policy/mpgnotes/?lang=en>

² Office of Public Sector Information: Town and Country Planning Act 1990 (as amended).

³ Office of Public Sector Information: Planning and Compulsory Purchase Act 2004 (as amended).

⁴ Office of Public Sector Information: Planning Act 2008 (as amended).

the LPA may commission appropriate restoration work and reclaim the costs of doing so from the operator/landowner under Schedule 5, Part 1, Paragraph 6 of the TACP 1990. As is often the case LPAs may also seek a financial guarantee or restoration bond to ensure that a site can be reclaimed if the conditions are not complied with.

The preference for specific types of restoration and aftercare has changed over the years in response to growing environmental awareness, increasingly stringent environmental regulation, and increasing public engagement in the planning process.

3.3 **REGULATORY BODIES - THE COAL AUTHORITY**

The Coal Authority (CA) is the body which owns the vast majority of coal in Great Britain, as well as former coal mines. The CA works to protect the public and the environment through the management of the effects of past coal mining to promote public safety and safeguard the landscape. Its statutory responsibilities include:

- Licencing coal mines in Great Britain;
- Dealing with subsidence issues which are not the responsibility of the operators;
- Management of property and historic liability, such as surface hazards and treatment of minewater discharges; and
- Providing information to the public on past and present coal mining operations.

The CA has three main outcomes which it is working towards¹:

- Manage coal safety legacy issues and communicate related information to citizens and stakeholders *“so that the safety of the public is protected from historic coal mining”*;
- Manage water pollution caused by mining *“so that water is protected and improved to “good” status”*; and
- Use its information and skills and experience *“so that stakeholders are aware of mining information to make informed decisions and value is created for the Authority”*.

3.4 **LOCAL PLANNING AUTHORITIES AND LOCAL DEVELOPMENT PLANS**

Every LPA in Wales has a statutory obligation to develop a Local Development Plan (LDP) according to the framework set out in *Planning Policy Wales, 2008*. Under Section 38(6) of the *Planning Compulsory Purchase Act*

¹ <http://coal.decc.gov.uk/assets/coal/publicationsandinformation/the%20corporate%20plan.pdf>.

2004, all planning applications are decided according to the criteria set out in the adopted LDP, unless material considerations dictate otherwise.

3.4.1 *Blaenau Gwent LDP*

The County Borough Council adopted the LDP¹ in November 2012. The Plan outlines where new developments will go in terms of housing, employment, community facilities and roads up to 2021. It provides the framework for local decision making combining development with conservation interests to ensure maximum benefits to the community.

The plan sets out the County Borough Council's land use policies and proposals to control development and provides the basis on which planning applications are determined.

The plan confirms that much of Blaenau Gwent was subject to past underground coal mining and is therefore a 'Coal Mining Referral Area'. Determination of the extent of the constraints to development posed by this designation is the responsibility of the developer, who should consult with the CA. The County Borough Council will be guided by advice from the CA and internal technical staff. Planning applications will need to be accompanied by a geotechnical investigation and stability report.

As part of the plan's objectives, under Theme 1, the re-use of derelict land and buildings should be promoted to mitigate or adapt to the effects of climate change.

Objective 14 relates to mineral extraction in Blaenau Gwent County Borough Council. One of the stipulations for such development is that it should have *"Appropriate, acceptable proposals for restoration, after-use and aftercare"*. Restoration proposals should be phased and commence as early as possible. Blaenau Gwent will encourage progressive restoration at the earliest opportunity. After-uses may include agriculture, forestry / woodland, public open space, recreations, nature conservation or other but should favour landscapes which are characteristic of the area and priority habitats identified in the Local Biodiversity Action Plan.

Objective 15 of the plan confirms that mineral buffer zones are shown around all quarries and mineral operations, including dormant sites. This is to safeguard mineral reserves for future working by ensuring they are not sterilised by development and to ensure that negative environmental effects of mining do not negatively affect sensitive receptors.

The plan outlines that while dormant sites retain permission, modern conditions will be applied to the existing permission in accordance with national guidance before any work can recommence. The national guidance recognises the importance of future use of sites to give certainty to

¹ http://www.blaenau-gwent.gov.uk/documents/Documents_Environment/LDP_Written_Statement.pdf

communities that may be affected by future mineral extraction.

3.4.2 *Bridgend LDP*

The Local Development Plan (LDP) was adopted by Bridgend County Borough Council on the 18th September 2013¹. The LDP contains *Policy ENV11 - Mineral Development* which states that all mineral proposals will only be permitted where there are proposals for the duration and phasing of operations, restoration, beneficial after-use and aftercare are acceptable and priority given to a nature conservation end use.

3.4.3 *Carmarthenshire LDP/UDP*

Carmarthenshire County Council submitted the its LDP² to the Welsh Government on 12th June 2013 for public examination in accordance with the *Town and Country Planning (Local Development Plan) (Wales) Regulations 2005*.

It is worth noting that in October 2013 a 'Composite Plan' has been produced following a request by the Inspector. The Composite Plan incorporates the 'Focussed Changes' to the Deposit LDP. However the 'Composite Plan' does not form part of the LDP Examination and is purely a reference document.

The plan has the following relevant policies:

- *Strategic Policy SP10 Mineral Resources* states that "Provision will be made to ensure proposals do not compromise environmental, amenity or social considerations by incorporating a high standard of restoration and aftercare at mineral sites and providing for its beneficial re-use after extraction has ceased"; and
- *Policy MPP7 Restoration and Aftercare of Mineral Sites* states that proposals for mineral workings will be required to provide for the restoration and aftercare of the land and for its beneficial re-use and enhancement. The Council will seek a financial guarantee included as a Planning Obligation to secure the necessary works.

The Carmarthenshire UDP was formally adopted in 2006, replacing the Dyfed Structure Plan, Carmarthen District Local Plan, the Dinefwr Local Plan and the Llanelli Area Local Plan Statement. There are a number of stipulations and policies in the UDP regarding minerals mining restoration:

- *Policy MWM1* states that new minerals sites and extensions to existing mineral sites part F states that the County Council will require "Proposals for restoration, landscaping, after-use and aftercare of the site when working operations have finished";

¹ <http://www.bridgend.gov.uk/web/groups/public/documents/report/090958.pdf>

² http://online.carmarthenshire.gov.uk/ccapps/ldpcarmdeposit/local_plan/frameset.htm

- *Policy MWM4 - Restoration and aftercare*, confirms that it is the policy of the County Council that proposals for mineral works will make provision for the restoration and aftercare of the land and for its beneficial re-use. The County Council might seek to secure the relevant works through a financial guarantee included in a planning obligation under *Section 106 of the Town and Country Planning Act 1990*. This will be done for the following reasons:
 - In the interests of amenity value;
 - To ensure the proposed development is suited to its location; and
 - To increase opportunities for economic activity and increased biodiversity.
- *Policy MWM12 - Colliery Spoil*, stipulates that applications for planning permission to use land for tipping spoil will be considered in relation to, amongst other things, the viability of the restoration scheme;
- Policy MWM22 requires that mineral extraction below the water table will only be permitted where restoration proposals involving the infilling of the resultant void below the table uses inert material; and
- Policy MWM34 concerns the infilling of voids and confirms that in the interests of landscape reclamation and restoration, the County Council will permit the reclamation of contaminated or derelict land and disused quarries. The use of suitable waste materials which are not recyclable and which form a suitable medium for vegetation regeneration.

3.4.4 *Neath Port Talbot LDP*

Neath Port Talbot is currently considering responses to the Deposit LDP¹ consultation, which ended on 15th October. The Deposit LDP has a number of policies relating to closure and restoration which are relevant to this report:

- *Policy EN2 Special Landscape areas* – this includes the Margam area which is designated as a special landscape area. The policy stipulates that development within this area will only be permitted where it is demonstrated that there will be no significant adverse impacts on the features and characteristics of the area. Furthermore, it is anticipated that minerals developments would be one of the likely proposals in the area that would have significant effects. Mineral developments will be expected to provide screening or bunding during operation and a

¹ <http://www.bridgend.gov.uk/web/groups/public/documents/services/udpadoptedddocument2005reduceds.pdf>

restoration plan to return the landscape as far as practicable to its original form and appearance;

- *Policy M4 Criteria for the Assessment of Mineral Development* – states that proposals for mineral extraction will only be permitted where there is restoration and beneficial after-use and aftercare. To this end, proposals should be phased to commence as early as possible, preferably progressive restoration. The *West Glamorgan County Council Act 1987* enables the authority to require a financial bond as a planning condition to any non-British Coal Corporation (including successors). Appropriate after-uses may include agriculture, forestry / woodland and amenity. Landscapes identified in the Local Biodiversity Action Plan will be favoured.

The *Neath Port Talbot UDP*¹ was adopted in March 2008 and is currently in force, until the LDP is adopted. It replaced the *West Glamorgan Structure Plan*, the Minerals Local Plan and the local plans that had covered the area. There are policies relevant to restoration and aftercare, namely:

- Policy 20 – states that proposals for coal extraction will be favoured where they contribute to the County Borough Council's share of local, regional or national production subject to; securing appropriate, high quality and prompt restoration and aftercare to provide a beneficial after-use;
- Policy GC2 – has a reference to restoration and aftercare under engineering works and operations, which states that *"a scheme has been submitted as part of the proposals which indicates satisfactorily how the work will be undertaken including: restoration and / or aftercare which ensures a beneficial after-use which takes full account of the potential to create habitats in line with the LBAP, landscaping, and any proposals to mitigate the impacts created upon the community and environment"*;
- Policy M8 – provides criteria for the assessment of coal and all mineral applications states that proposals for mineral extraction and associated development, including the tipping of mineral waste and the reworking of tips will only be permitted when criteria including restoration, aftercare and after-use is included;
- *Policy M9 Opencast Coal* –includes a note stating that restoration should be phased to commence as early as possible, preferably in a progressive manner. After-uses should favour the creation of landscapes characteristic of the area and priority habitats identified in the LBAP;

¹ <http://www.npt.gov.uk/default.aspx?page=1989>

- *Policy M10 Planning Permission and Aftercare Requirements* – confirms that where planning permission is granted for coal mining, a financial bond will be required capable of securing satisfactory landscaping, restoration and aftercare; and
- *Policy M11 Review of Operations* – confirms that under *Section 96 of the Environment Act 1995*, the Council when reviewing planning permissions for mineral extraction, will seek to ensure the imposition of modern conditions to ensure the satisfactory restoration and aftercare of the site and when applicable, statutory powers of revocation, modification, discontinuance, prohibition or suspension of minerals workings.

3.4.5 *Merthyr Tydfil LDP*

The Merthyr Tydfil LDP¹ was adopted on 25th May 2011. It contains some policies relevant to mine restoration and after-use, namely *Policy TB8 Mineral Proposals*. This policy states that proposals for minerals extraction will only be permitted where they include “*acceptable proposals for progressive and final restoration, aftercare and beneficial after-use*”.

3.4.6 *Powys UDP*

Work on the Powys LDP is at an early stage, with the Council working towards publication of the Deposit Plan ready for public consultation in June 2014. Therefore, the Powys UDP² is the most up to date local planning document. The only policy regarding restoration is MW20 and some other policies refer to this in terms of restoration e.g. *Policy MW1 Mining and Waste Disposal*.

- *Policy MW20 Restoration of Opencast Coal and Waste Deposition Sites* confirms that any proposal to mine coal by opencast methods shall include a scheme of restoration and aftercare to a high standard;
- The proposal should place emphasis on the creation of wildlife habitats that complement those of the surrounding land. The proposals should include proposals for the long-term management of the created habitats;
- The provision of rights and opportunities for quiet recreation will at least equal those already on site. For example, public rights of way are expected to be replaced on almost identical lines to those present on the definitive map;

¹

<http://www.merthyr.gov.uk/English/EnvironmentAndPlanning/Planning/Documents/MTCBC%20Adopted%20LDP%20-%20May%202011.pdf>

² http://www.powys.gov.uk/uploads/media/written_statement_en.pdf

- The proposals should seek to produce a landscape that is similar in character to those which presently exist on undisturbed land in the area;
- The proposals should include for any working that would physically disturb an aquifer or intercept contaminated mine water including such measures during restoration;
- Site restoration should be carried out in a progressive manner unless the short life of mine precludes this; and
- For coal workings, except where precluded by law, a financial guarantee must be put in place to cover the possibility of a developer defaulting on their responsibilities for restoration and aftercare.

3.4.7

Rhondda Cynon Taf LDP

The LDP for Rhondda Cynon Taf¹ was adopted in 2011. The primary policy relating to restoration in the County Borough Council area is *Policy CS10 Minerals*. This policy confirms that the Council will seek to protect resources and contribute to the local, regional and national demand for a continuous supply of minerals, without compromising environmental and social issues while (amongst other measures) ensuring that appropriate restoration and aftercare measures are incorporated.

The LDP contains a number of area specific policies which cover areas of previous coal mining activities. These are:

- Policy NSA4 – Former Maerdy Colliery Site, Rhondda Fach – defines an area zoned for a number of uses including employment and recreation after reclamation of the site. Part of the policy confirms that there will be *“retention and management of sites of importance for nature conservation; establishment of community woodland; restoration of valley side to natural appearance through land reclamation”*;
- Policy NSA5 Former Fernhill Colliery, Blaenrhondda – this site is allocated for mixed use development subject to reclamation. The policy confirms that *“restoration of channels and green corridors for the Rhondda Fawr and its tributaries; retention and management of the SINC and mitigation of impact of primary access road; restoration of the land north of the site for amenity open space”*;

¹ <http://www.rctcbc.gov.uk/en/relateddocuments/publications/developmentplanning/localdevelopmentplan2006-2021/adoptedldp2011.pdf>

- Policy NSA8 – Land South of Hirwaun – this site is zoned for mixed use development subject to land reclamation. The policy includes for restoration and enhancement of the landscape and habitats;
- Policies NSA27 and SSA24 – Land Reclamation Schemes – the policy lists a number of sites designated for reclamation including Aberaman Colliery and Cwm Colliery and Coking works at Tyn-y-Nant. It confirms that some unsightly aspects such as mineral workings or waste sites are created with planning permission but subject to conditions to ensure restoration of the sites; and
- Policy SSA7 – Former Cwm Colliery and Coking Works, Tyn-y-Nant, Pontypridd. This policy is zoned for mixed use development subject to reclamation. The policy includes for “*restoration of the colliery tips and habitat enhancement to form accessible open space*”.

3.4.8 *Torfaen LDP*

The LDP for Torfaen¹ has been examined and is due to be adopted in December 2013. There is no policy in the Deposit LDP which relates to restoration and aftercare of opencast coal mines. Work on the UDP ceased in February 2005 due to the new Regulations published by the Welsh Government. The UDP Strategy and Issues Paper, May 2000² makes reference to restoration as part of minerals works in that some form of restoration or remedial work is needed to make the site suitable for a beneficial after-use. It is also stated that the UDP was scheduled to include a policy on restoration.

3.5 *INTERNATIONAL GUIDANCE AND BEST PRACTICE*

3.5.1 *International Council on Mining and Minerals (ICMM)*

The ICMM has produced guidance on mine closure in the form of the *Planning for Integrated Mine Closure Toolkit*, 2008³. The toolkit is intended to promote a more disciplined approach to integrated closure planning and increase good practice in companies in the mining sector. It outlines a range of 13 tools that can be used covering the following:

- Tool 1: Stakeholder Engagement;
- Tool 2: Community Development;
- Tool 3: Company / Community Interactions to Support Integrated Closure Planning;

¹ <http://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/SD01-DepositTorfaenLDPWrittenStatement2006-2021.pdf>

² <http://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/UDP-Strategy-and-Issues-paper.pdf>

³ Planning for Integrated Mine Closure Toolkit, ICMM, 2008

- Tool 4: Risk / Opportunity Assessment and Management;
- Tool 5: Knowledge Platform Mapping;
- Tool 6: Typical Headings for Contextual Information in a Conceptual Closure Plan;
- Tool 7: Goal Setting;
- Tool 8: Brainstorming Support Table for Social Goal Setting;
- Tool 9: Brainstorming Support Table for Environmental Goal Setting;
- Tool 10: Cost Risk Assessment for Closure;
- Tool 11: Change Management Worksheet;
- Tool 12: The Domain Model; and
- Tool 13: Biodiversity Management.

The ICMM has also produced guidance on financial issues in closure and restoration titled '*Financial Assurance for Mine Closure and Reclamation*'¹ produced in 2005. The guidance was produced in response to the increasing tendency of government agencies to adopt policies on requiring mining companies to provide environmental financial assurance (EFA) for meeting the costs of reclaiming post mining lands. The report outlines the EFA measures being applied in different jurisdictions, the extent of policies and practices and the issues arising from those policies and practices.

3.5.2 *International Financial Corporation (IFC)*

Performance Standards

The IFC has produced a Performance Standard (PS) (PS1) on Environmental and Social Risks and Impacts² which covers closure and restoration. The standard applies to environmental and social risks and impacts and includes the entire life cycle of a project (design, construction, commissioning, operation, decommissioning, closure or, where applicable, post-closure).

Environmental, Health and Safety Guidelines

The IFC's Environmental, Health and Safety Guidelines Mining³ include a section on closure of mines. It states that closure and post-closure should be

¹ <http://www.icmm.com/page/1158/publications/documents/financial-assurance-for-mine-closure-and-reclamation>

² http://www.ifc.org/wps/wcm/connect/115482804a0255db96fbfd1a5d13d27/PS_English_2012_Full-Documents.pdf?MOD=AJPERES

³ <http://www.ifc.org/wps/wcm/connect/1f4dc28048855af4879cd76a6515bb18/Final%2B-%2BMining.pdf?MOD=AJPERES&id=1323153264157>

considered early in the design. A Mine Reclamation and Closure Plan (MRCP) should be prepared prior to the start of mining outlining allocated and sustainable funding sources. The closure plan should incorporate physical rehabilitation and socio-economic considerations such that:

- Future public health and safety is not jeopardised;
- The after-use is beneficial and sustainable to the community; and
- Adverse socio-economic impacts are minimised and benefits maximised.

The guidelines outline the financial instruments that should be used to cover the cost of closure at any stage of the mine's life, including early closure. Funding should be by either a cash accrual system (fully funded escrow or sinking funds) or a financial guarantee by a reputable financial institution. The guidelines also state that mine closure needs should be annually reviewed and the funding arrangements adjusted accordingly.

3.5.3 *The World Bank*

The World Bank commissioned ERM to develop a toolkit¹ for closure of mines and oil and gas operations in 2010. The five tools outlined in the toolkit are:

1. **Policy and Regulatory Framework** – this aims to delineate the steps for an improved policy and regulatory framework and to provide a platform for the remaining tools;
2. **Environmental and Social Best Practice and Management Systems** - outlines how governments can contribute to the implementation of best practice regarding closure and includes guidance on a successful closure plan;
3. **Financial Assurance Mechanisms** – guidance on establishing financial mechanisms for extractive industry;
4. **Monitoring and Enforcement** – this emphasises the importance of governments in monitoring compliance with regulations and requirements in the planning and implementation of closure; and
5. **Stakeholder Engagement and Continuous Improvement** – encourages governments and planning authorities to use stakeholder engagement to understand community priorities and contribute as partners in closure planning.

¹ http://siteresources.worldbank.org/EXTOGMC/Resources/336929-1258667423902/decommission_toolkit3_full.pdf

3.5.4

The European Commission (EC)

The EC produced a document in 2004 titled '*Reference Document on Best Available Techniques for Management of Tailings and Waste-Rock in Mining Activities*¹'. The document outlines guidance on tailings and waste rock management and includes examples of 'good practice' with the intention of raising awareness of such practices and promoting their usage. It is suggested in the document how waste rock can be used in restoration projects. It does not however, cover abandoned mine sites.

During operation of a mine 'Best Available Techniques (BAT)' is to use waste rock to progressively restore and / or re-vegetate an area. The example of this contained in the document is that of *Mina de Reocín* in Spain, where waste rock is deposited into a mined out part of the open pit and the old waste rock dumps are covered and re-vegetated. Clay and top soils is specifically stored for this purpose.

The advantages of progressive restoration / re-vegetation are outlined as well as how to accelerate the re-vegetation process. Advantages of progressive restoration are:

- Costs are spread over a longer time period and can be recovered from mining revenues;
- Closure activities can be integrated into daily mine activities;
- Shorter closure period implementation;
- Monitoring programmes are integrated into environmental management;
- Successful techniques can be included in the final closure plan; and
- Minimisation of adverse environmental effects.

3.5.5

The Environmental Protection Agency (EPA) (Ireland)

The EPA in Ireland has developed guidance for restoration of mine sites in the extractives industry² titled '*Environmental Management in the Extractive Industry (Non-Scheduled Minerals)*', 2006. The guidance deals mainly with landscape and visual issues. The method of extraction and restoration scheme when properly planned can eliminate or minimise potential impacts. Progressive restoration is emphasised and it is advised to:

- Consider and develop a restoration plan at the earliest possible stage;

¹ http://ec.europa.eu/environment/ippc/brefs/mtwr_final_0704.pdf

² http://www.epa.ie/pubs/advice/general/epa_management_extractive_industry.pdf

- Consult with interested parties regarding after-use and restoration;
- After-uses to be considered are: agricultural, forestry, amenity (fisheries, golf), natural habitat, landfill;
- Implement progressive restoration;
- Maximise soil recovery from stripping and storage of overburden for use in restoration; and
- Develop an appropriate programme of aftercare.

3.5.6

Nevada Department of Environmental Protection (NDEP)

The NDEP has developed two documents relating to aftercare:

- The '*Mine Plan of Operations Reclamation Bond Checklist*¹', 2007 and
- The '*Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports*²', 2007.

The *Mine Plan of Operations Reclamation Bond Checklist* outlines the measures required for restoring mine sites. The relevant topics covered are:

- Access roads and drill pads;
- Waste and development rock piles;
- Open pit mines;
- Re-vegetation;
- Contractor profit (10 % of project cost for Bureau of Land Management and US Forest Service);
- Lead Agency Costs (10 % of project cost for the Bureau of Land Management and 15 % for US Forest Service); and
- Bonds – reductions based on estimated cost and sequential or phased bonding.

Regarding opencast mines, the following is included:

- Undertaking activities to protect public safety;
- Stabilising pit walls or rock faces;

¹ <http://ndep.nv.gov/bmrr/bond.pdf>

² <http://ndep.nv.gov/bmrr/closure2.pdf>

- Constructing and maintaining berms and / or fences to restrict access;
- Creating a lake for recreational use of wildlife enhancement or another beneficial after-use; and
- Re-vegetation of the site.

The NDEP has also produced guidance on preparing closure plans for mines. The document is called *Preparation Requirements and Guidelines for Permanent Closure Plans and Final Closure Reports*. The guidance details the four reports that are required relating to closure of mines in the State of Nevada and what is required to be included in those reports. The reports in question are:

- **Tentative Permanent Closure Plan** – to be submitted with application for Water Pollution Control Permit;
- **Final Permanent Closure Plan** – to be submitted at least two years prior to closure of the specified component;
- **Final Closure Report** – a summary of all completed closure activities such as detoxification of slag heaps, completed earthworks etc.; and
- **Request for Final Closure** – shows achievement of chemical and physical stabilisation and this facilitates the surrender and retirement of the Water Pollution Control Permit.

3.5.7 *Australian Government*

The Australian Government has published guidance on the closure of mines¹ titled '*Mine Closure and Completion, 2006*'. The guidance is part of the Leading Practice Sustainable Development Program which aims to integrate environmental, economic and social aspects through all the phases of a mine, from exploration to site closure and restoration. To this end, it identifies the issues that need to be considered at each phase of development.

It identifies issues affecting the Australian mining industry and provides information and case studies which show leading practice in the area. It outlines a set of principles which should guide mine closure, namely:

- Integrate sustainable development into decision making process;
- Implement risk management based on valid data and science;
- Continual improvement of environmental performance;

¹ http://www.minerals.org.au/file_upload/files/resources/enduring_value/mine_closure.pdf

- Contribute to the social and economic development of the area where the mine operates; and
- Implement effective and transparent community engagement and communication and independent reporting with stakeholders.

The guidance sets out the process for accounting for mine closure. Costs of closure must be met by the operator based on the actual disturbance at the site on the reporting date. The appropriate financial instruments must be agreed between the operator and the authority prior to approval of the operations and is reviewed through the project life. The guidance recognises that the requirement to cover the return of land to its pre mining state or to a state allowing a resumption of its pre mining use is not always achievable. Current practice favours the use of unconditional bank guarantees based on the cost of restoration. A tax deduction is allowed for the costs of closure if the land is returned to its previous use.

4.1 KEY OBSERVATIONS FROM DIALOGUE WITH LOCAL PLANNERS

It must be noted that all of the participants within the LPA were extremely cooperative, helpful and supportive. In addition to filling in the questionnaires for each relevant site, they entered into very full and detailed discussions and provided additional information when it was requested.

Their responses and opinions varied, depending upon their particular experience within their respective jurisdictions.

In Blaenau Gwent, planners held a positive view of opencast sites because all but one of them had been finished successfully prior to the industry having been privatised. The one recent scheme involved the extraction of a small quantity of in-situ coal, which had assisted the reclamation of an unsightly colliery spoil heap, the Vivian Top Tip, Abertillery, which had been washed and restored. The opencast component of the scheme had contributed to its financial viability and provided cover material to assist with the covering of the reshaped site. The earlier sites had produced a range of benefits including removing shallow workings beneath development sites, to the removal of historic dereliction, to the creation of a major lake and public amenity at Brynbach Park, Tredegar.

Merthyr Tydfil and Rhondda Cynon Taf had each dealt with a large, more recently approved scheme, involving the provision of a performance bond, the sites being at Ffos-y-Fran, Merthyr, and Tower, Hirwaun respectively. Ffos-y-Fran is being operated by Miller Argent (South Wales) Ltd, and the Tower site by Tower Regeneration Ltd. Rhondda Cynon Taf is also currently processing a planning application by Celtic Energy Ltd., for the Bryn Defaid site North of Aberdare.

Powys County Council has a service agreement with Carmarthenshire County Council who have oversight of the Nant Helen site, Coelbren on their behalf. They also oversee the restored Bryn Henllys site on the same basis.

Bridgend County Borough Council has a consultative role with Neath Port Talbot County Borough Council regarding the Margam site, which straddles the boundary between the two authorities.

Torfaen and Caerphilly County Borough Councils have no recent operating opencast coal sites, but Caerphilly is currently processing an application for Nant Llesg, Rhymney. An application for a site at Varteg in Torfaen has recently been refused. Torfaen have a positive view of their last completed opencast coal project (Garn Lakes Blaenavon) because it removed surface dereliction, and created a public amenity including two lakes. This was however completed almost 20 years ago under different market conditions.

Carmarthenshire and Neath Port Talbot County Councils are dealing with a range of large and smaller sites, where all but one of the smaller sites, Dynant Fawr, Tumble in Carmarthenshire is thought to be adequately bonded or assured. The Dynant Fawr site poses a problem to the LPA because it has been abandoned in an unrestored state and insufficient Bond is reported to exist to meet the cost of its restoration.

The four large sites for which they have responsibility were not initially the subject of restoration bonds, but have subsequently generated varying levels of bond as a consequence of planning permissions granted to extensions. These four large sites are:

- Margam at Pyle, Neath Port Talbot;
- East Pit at Tairgwaith, Neath Port Talbot;
- Selar at Glynneath, Neath Port Talbot; and
- Nant Helen at Coelbren, Powys (overseen by Carmarthenshire under a Service Agreement).

All four of these large sites are operated by Celtic Energy Ltd, but ownership of most of the land at all four has reportedly been transferred to subsidiaries of Oak Regeneration Ltd; a company which we understand is based in the British Virgin Islands..

Without exception, the consultees emphasised the need for the provision of adequate performance bonds, but highlighted the challenge faced in ensuring that the in-flow of bond monies or cover was adequate, at all times, to cover the liability that could arise because of abandonment of a site at any stage. There was general recognition that the adequacy of a bond could be jeopardised, particularly by changed working sequences and cost inflation, and that the calculation, accumulation and release of bond monies needed considerable time inputs from qualified and experienced staff. Cash Bonds were generally accepted as giving the LPA greatest control, but it was noted that some Bank / Insurance Company Bonds had operated effectively on smaller sites.

It was felt that the transfer of ownership of operating sites may cause problems for LPAs, in that they have difficulty in making effective contact with the new owners, or getting adequate responses from them. Furthermore, early disposal of restored sites to multiple owners, sometimes on completion of basic restoration, but at the commencement of the aftercare period, is reported to be a problem. The aftercare period is critical to the final success of the ultimate site restoration, but it was stated that this is harder to achieve when the site has been split between numerous owners, many of whom might not have the necessary means, understanding or land management skills to complete the task.

The longevity and complexity of on-going schemes, and sporadic nature of the emergence of new schemes, calls for a close working relationship and

exchange of knowledge and experience between officers of different authorities, plus a continuity of project oversight by planning officers. The topic of opencast coal extraction is covered currently by the Planning Officers Society Wales' Minerals and Waste Planning group at their twice yearly meeting, by informal cooperation, and in the case of the Nant Helen site at Coelbren, Powys, by Powys County Council having a service agreement with Carmarthenshire County Council, whereby Carmarthenshire provides the technical input into the oversight of the site due to a lack of relevant technical expertise in the Powys Council. Similarly, Rhondda Cynon Taf has drawn upon technical support from Neath Port Talbot in connection with the Tower site.

4.2

SUMMARY OF DIALOGUE WITH COAL AUTHORITY

The Coal Authority (CA) cooperated with this study by providing a list of those sites in South Wales which have an operating licence. They also hosted a meeting at which the list of sites and other more general issues were discussed (See Annexes C and D for received data and meeting notes).

The CA explained the purpose of the licence and its geographical extent. They clarified that the licence for any prospect defines the area of the coal to be extracted, taking account of:

- The plan area of multiple seams;
- The area necessary to excavate the approved coal safely, namely the outline of the limit of excavation;
- The area of responsibility for coal mining subsidence damage; and
- The surface hazard area, within which the operator is responsible for surface hazards existing as a result of the coal mining operations. This includes mineshafts and shallow old working collapses.

The CA confirmed that licences for such coal extraction can usually be surrendered once operations / restoration reach a level where all significant liabilities that would fall on the CA have been satisfactorily addressed. From this definition, it can be seen that the planning permission for any such operation usually has to cover a much larger area than the licence, to accommodate spoil heaps, coal treatment and handling areas, plant yards, offices, compensation areas and water management / treatment facilities etcetera.

It was explained that at privatisation in 1995, no royalties were charged on licenced sites that were passed to the private sector from British Coal. Sites subsequently licenced had negotiated royalties until April 2003 and then a fixed royalty which has risen from 10 pence (p) per tonne in 2003 to 17p per tonne currently.

The CA also explained that at privatisation, licenced sites that were operating and passed to the three large successor companies (Celtic Energy Ltd. in Wales) did not have any form of restoration bond. This also applied to some future sites with conditional licences that remained in place for 10 years after privatisation. It is therefore only new sites or extensions which have planning permission after that deadline which have any form of bond in place.

As background to the situation which is emerging in Scotland, with the demise of Scottish Coal Ltd (where approximately 20 former sites are left unrestored or with partial restoration) the CA outlined the emergence of a body called the Scottish Mines Restoration Trust. The trust is seeking to broker compromise solutions to the restoration of sites using what funds are available, coupled with community buy-in to alternative solutions. Should such a body be developed in Wales the CA expressed a wish to contribute in an advisory and 'honest-broker' role.

4.3 SUMMARY OF KEY SITE SPECIFIC IDENTIFIED RISKS

4.3.1 Introduction

The risks which this report seeks to identify are those where the bond or surety held by the LPAs is zero, or falls short of that level which might be required to restore a site in accordance with the planning permission and any Section 106 Agreement in place for the site, should the site be abandoned or left unrestored. It should be noted that our review is based on information collected from the LPA questionnaires / interviews and has not extended to be an appraisal of site operator's financial standing.

In summary, based on the collected information, of the ten sites regarded as active, four, namely:

- Glanlash, Llandybie (Carmarthenshire);
- Nant-y-Mynydd, Glynneath (Neath Port Talbot)
- Bwlch Ffos, Resolven (Neath Port Talbot);
- and Selar, Glynneath (Neath Port Talbot)

Are not considered to pose a significant risk.

Five larger sites, at:

- Ffos-y-Fran (Merthyr);
- Tower, at Hirwaun, (Rhondda Cynon Taf);
- Nant Helen, Coelbren (Powys);
- East Pit, Gwaun-Cae-Gurwen (Neath Port Talbot), and
- Margam at Kenfig, (Neath Port Talbot).

May have insufficient bond cover at some stages of their operating life, and the smaller but significant site at Dynant Fawr, Tumble, Carmarthenshire has effectively been abandoned in an unrestored state.

The situation on each of the ten sites is summarised below.

4.3.2 *Sites not considered to pose a significant risk.*

Glanlash, Llandybie.

This site is being operated by Bryn Bach Coal Ltd. and covers 10 ha. Approximately 20 % of a coal take of 93,000 tonnes of coal has been extracted, and an initial cash bond of £337,000 is being added to progressively, to a ceiling of £549,000 which is regarded by the LPA as sufficient to restore the site.

Nant-y-Mynydd, Glynneath.

This site which is being operated by Energybuild Ltd. covers 76 ha. Extraction operations have finished, and restoration is well underway. An insurance company bond of £3.1m is held by the LPA, and is deemed by the LPA as being adequate to meet any shortfall in restoration.

Bwlch Ffos, Resolven.

The site, which is owned by Natural Resources Wales, is operated by Horizon Mining Ltd and covers approximately 40 ha. The site is currently has an undetermined planning application to regularise the coal and sandstone extraction within the site. Approximately 30,000 tonnes of coal remain, and there is an opportunity to review the existing bond of £775,000 under the current application.

Based on the collected information and the views expressed by the LPA, the bond is regarded as being sufficient to ensure that the site could be satisfactorily restored if it were to be abandoned.

Selar, Glynneath.

This site extends to a total of 380 ha, is operated by Celtic Energy Ltd and has been the subject of a series of extensions, with a current undetermined planning application for a further extension being considered by the LPA (Neath Port Talbot County Borough Council). There currently remains approximately 600,000 tonnes of coal to be extracted, and the current application would result in a further 800,000 tonnes being extracted from within the same site footprint. Planning permissions for previous site extensions have enabled a restoration bond to be accumulated. This currently stands at approximately £19m and is estimated to be £22m by April 2014. This level of bond cover, coupled with the completion of a substantial amount of restoration to date, is believed to be sufficient to ensure restoration of the site. The site ownership has reportedly transferred to Sycamore Regeneration Inc., a subsidiary of Oak Regeneration Ltd.

Ffos-Y-Fran, Merthyr Tydfil.

This 400 ha site is operated by Miller Argent (South Wales) Ltd, and there remains an estimated 6.6 million (m) tonnes of coal to be extracted, from a total anticipated reserve of 10.8 m tonnes. The site is quite confined and is being worked to a depth in excess of 150 m from the surrounding ground level in places. Although there is as much progressive restoration taking place as the site permits, there are very large overburden mounds which will finally need to be returned to the excavated void. Based merely on the likely cost of bulk earthmoving of those overburden mounds, and the final restoration and treatment of the surface of the 400 ha site, it is likely that the fixed bond of £15 m held by the LPA, Merthyr Tydfil County Borough Council, falls well short of a worst case restoration cost which could be in excess of £50 m based on the collected information.

Tower, Hirwaun.

This 253 ha site is operated by Tower Regeneration Ltd, who have extracted 700,000 tonnes of coal of an anticipated total take of 6 m tonnes. The topography of the site has allowed it to be worked in a series of seven cuts, so reducing the amount of double handling, and permitting some progressive restoration, so minimising the scale of restoration needed should it cease operating. The cash bond held by the LPA, Rhondda Cynon Taf commenced at £4 m, plus £500,000 per month to a total of £10 m, where it is currently. The bond is reviewed annually, and could reach a maximum of £22 m. The LPA is provided with the technical support needed for this review, by experienced specialists from Neath Port Talbot. The maximum bond is substantial, and that coupled with the phased excavation and restoration of the site, should ensure that the level of risk of a shortfall is low. However, part of the site requires a 25 year aftercare regime, which could generate substantial costs. Furthermore, any marked departure from the sequential phasing could increase the risk of a funding gap significantly, in the event of abandonment of the site.

Nant Helen, Coelbren.

This 345 ha site is operated by Celtic Energy Ltd, but the site ownership has transferred to Ash Regeneration Inc; a subsidiary of Oak Regeneration Ltd. Approximately 2 million tonnes of coal remain to be extracted. The site has received a number of extensions to its original planning permission, which has resulted in restoration bonds associated with these extensions. The incremental bond held by the LPA, currently stands at £6 m, but payments of £1.5 m per quarter are required, to a maximum of £30 m by September 2017. Inevitably, in the short to medium term, there would be a very large funding gap should operations cease. On completion of coal extraction, the full bond of £30 m might be adequate, but that is not certain.

East Pit, Gwaun-Cae-Gurwen.

This site, which extends to approximately 400 ha, is operated by Celtic Energy Ltd. Approximately 600,000 tonnes of coal remains to be extracted. The ownership of the site has transferred to Pine Regeneration Inc; a subsidiary of Oak Regeneration Ltd. Although initially one of the privatised sites, with no bond, subsequent planning permissions have resulted in a bond accumulated at the rate of £2 per tonne of coal extracted. The bond currently stands at approximately £3 m and could rise to approximately £4 m. A very broad estimate of the cost of restoring the site in line with current planning permissions has been assessed by the LPA as being of the order of £100 m. Currently, a planning application (undetermined) is being considered, which would involve leaving the void partially unfilled and accommodating a lake, with modifications to the landform and altered after-use proposals. These proposals, if approved, might reduce the cost of restoration by up to 50 %, and bring some increased residual land value, but even in those circumstances the indications are that there would be a significant funding gap.

Margam, Kenfig.

No coal remains to be extracted from this 200 ha site. It was operated by Celtic Energy Ltd, but the land ownership has transferred to Beech Regeneration Inc; a subsidiary of Oak Regeneration. The LPA holds a bond of £5 m, but a LPA assessment of the cost of restoring the site, in accordance with the current planning permission, suggests a figure of approximately £56 m. Beech Regeneration has proposed a scheme involving less extensive reclamation and an alternative after-use including significant built development. The amended restoration works might conceivably still cost £25m to £30m, and consent for development of the site might bring enhanced land values. However, it is hard to quantify how the anticipated funding gap could be closed.

Dynant Fawr, Tumble

This site extends to 33 ha and coal extraction has finished, having removed approximately 100,000 tonnes of coal in total. The operator Carmarthen Mining Ltd has been dissolved. The site ownership is spread between a number of owners, and the LPA has released some of its bond to achieve some restoration and currently holds a bond of £176,000 which falls short of full restoration costs which the LPA believes could exceed £250,000.

5.1 INTRODUCTION

As set out in Section 4.3.1, it can be seen that of the ten active sites, four appear to have little threat to their successful completion and restoration based on the collected information.

Based on the collected information, five sites have been provisionally identified as having varying degrees of risk. One site, (Dynant Fawr, Tumble) although having some bond protection, has effectively been abandoned, leaving a situation where alternative restoration strategies will need to be evaluated.

5.2 RESTORATION BONDS

After World War II, a significant number of large opencast coal sites were developed in South Wales. Some of the early sites such as those at Pwlldu, Blaenavon and Upper Varteg, Pontypool were merely reshaped to achieve relative stability and to facilitate effective surface run-off and avoid ponding. However, their high altitude, crude final landforms, steep slopes and lack of vegetation has meant that they continue to lack adequate vegetative cover, suffer continuing surface erosion and blight the landscape. Progressively, through the remainder of the 20th century, improved operating methods, restoration design / techniques coupled with greater financial resources and robust control stipulated within planning permissions, has resulted in a great improvement in final site restoration. These improved restoration standards were relatively assured, because British Coal, the controlling body, managed the contract cash flow by holding a "*restoration lump sum*" in reserve, which was tantamount to a restoration bond. Furthermore, in the event of all such precautions failing, British Coal as a government body could (as a means of last resort), restore an abandoned site at public cost.

Following privatisation, it is evident that large opencast coal sites should be the subject of adequate restoration bonds, to ensure that in the event of an operator collapsing financially or abandoning an unrestored site, the LPA has access to adequate funds to restore the site in accordance with the planning permission. There should be no exceptions to this requirement, because even the most well-funded operators can fall victim to adverse market conditions, unforeseen constraints / costs etc. This is particularly the case on large sites covering hundreds of hectares and containing millions of tonnes of coal, where the extraction, restoration and aftercare operations can extend to as much as 15 or 20 years. Within such a timescale any company can experience a downturn in its general commercial fortunes, but can also be afflicted by a large drop in coal prices and poorer site yields due to thinner seams or more extensive historic workings and hence a worsened overburden to coal ratio. Site operating costs can also be increased by prolonged periods of bad

weather, difficult or deteriorating materials and inflation in the cost of plant, labour and fuel. Such long timescales can also see the emergence of more demanding and costly operating restrictions and environmental requirements.

It is also worth noting that if sites are operated as 'special purpose vehicles' (SPV) the financial securities of the parent company cannot be relied on to fund any shortfall in restoration. Where a site operator is constituted as a SPV or company, consideration should be given to the seeking of Parent Company Guarantees, against the obligations under the Section 106 Agreement. Performance bonds can be provided by a bank or insurance company guarantee, or in cash. Experience has shown that on smaller schemes with lower risks, bank or insurance guarantees can be effective. However, providers of such bonds are understandably reluctant to part with funds without first contesting the quantum and timing of the release of such funds. These delays and debates can in themselves increase costs to the LPA, both in terms of professional time in defining the case and by delaying work and so missing seasons or causing further deterioration of the site in question.

An accumulated cash bond has the over-riding advantage of accessibility, but a cash bond in itself is not a panacea. This is because it has to be accumulated at a rate which keeps pace with the restoration burden posed by the site at any particular stage of its operation, but must not be pitched at an unreasonably high rate so as to make the site commercially unviable. Furthermore, it should be released at a rate which reflects the diminution of liability as the site is restored. The most equitable level of bond might well involve an initial lump sum to cover the damage and disruption caused during site establishment works, followed by a sum accrued against tonnage of coal extracted, time spent on the site, or agreed milestones related to a calculation of the restoration required at particular stages of the life of the site. A rate per tonne is attractive to both operators and the LPA. This is because the operator does not have to contribute unless they are producing coal, and from the perspective of the LPA it is easier to control and measure against coal leaving the site.

However, no method of accumulating a restoration bond is perfect. It has to be calculated from an assessment of the cost of restoring the site at a range of times during the operation of the site, and those calculations have to be based upon earthworks quantities and hauls trips related to an assumed programme and phasing, followed by surface soiling, drainage, fencing, the establishment of vegetation and a period of care and maintenance. Departure from the original programme and phasing can undermine the cost calculations. Furthermore, the cash bond, probably held in a low interest account, has to be sufficient to meet the costs of restoration after five or ten years of inflation. In the event of an operator failing to keep up bond payments, the LPA has little sanction other than to serve an enforcement notice which may merely create or accelerate an operational crisis on the site.

Release of a restoration bond is also a specialist and time consuming task, where the objective has to be the fair and equitable release of funds to reflect

restoration achieved, whilst not exposing the LPA to a shortfall by releasing funds too early.

Even with the most effective bond in place, it is not possible to replicate the pre-privatisation situation. Then, British Coal, a public body, held long and secure supply contracts with another public body, The Central Electricity Generating Board. These coal supply contracts often had an indexation agreement, and the opencast contractor had a long-term contract with cost indexation. British Coal in turn held the equivalent of an index-linked bond, and as a last resort, could draw on the public purse to restore a failed site.

In the current situation, the private operator has to trade his coal, often on short contracts, in a fluctuating world market, with growing restrictions on use, and in the face of unpredictable levels of inflation, particularly in the cost of fuel. Therefore, there needs to be a degree of balance and pragmatism in the setting and management of bonds and also in what constitutes acceptable restoration.

5.2.1 *Issues associated with Land Tenure*

The LPAs have reported two different difficulties which have arisen as a result of the change in land ownership of sites. Significant difficulties have emerged in the case of the Margan site, where coal extraction has been completed, but final restoration, which was due to start in 2008 has yet to commence. However, the ownership has transferred to a company which reportedly is based off-shore, and the LPA is facing difficulties in getting final restoration implemented.

Transfer and fragmentation of ownership of sites which have been restored but require on-going aftercare is also reported to have caused difficulty. This is because the new owners might lack the resources, understanding and land management skills to oversee the aftercare which is so important if the final intended restoration and vegetation establishment is to be achieved.

5.2.2 *Resources within Local Planning Authorities*

It has become evident from our discussions, that the designing, accumulation, holding, management and phased release of a bond is a specialist and very time consuming activity which can run throughout the operation of a site. It falls over and above the normal LPA task of processing and conditioning the original planning application / permission for the site, along with the subsequent monitoring of the project in terms of liaison and auditing compliance with the planning conditions.

The design and control of bonds requires significant initial inputs from lawyers / engineers / surveyors / quantity surveyors experienced in large mineral, earthmoving and restoration projects, to establish the size and cash-flow mechanisms of the bond. But once the project is operational, it will require regular inputs from those specialists, to ensure that operations are in

accordance with the programme upon which the bond is based and monies are being accumulated. Any significant departure from that programme must be assessed, and any adverse implications on the level of bond cover identified and a correction negotiated. As the site liabilities pass their peak and start to diminish, those overseeing the management of the bond, must ensure that the bond is released at a rate commensurate with that diminution in liability, but not at a rate which leaves a shortfall. The objective must be to adequately recompense the operator and not tie up their funds unnecessarily whilst retaining adequate protection for the LPA. The costs of these activities, and the need to provide basic quantity data and cost estimates should fall on the operator. It would be advantageous to establish a clear protocol by which the site operator should, annually, provide to the LPA, a review of current site earthworks quantities in terms of void and overburden heaps, and an estimate of the cost of site restoration at that time and at any future worst case. The LPA could then use this data as a start point to review the adequacy of the current and future adequacy of the bond provision for the site. The site operator should be required to notify the LPA of any departure from the anticipated programme of works if it would increase the scale of restoration cost and bond requirement determined at the previous review.

Finally it is worth noting that LPAs and the Coal Authority have very clear and legally defined roles in relation to the licencing and planning / operational compliance for opencast coal sites, but both bodies shared a view that over and above those formal roles they might well benefit from closer dialogue and the exchange of information, views and difficulties.

5.3 *OPTIONS FOR UNRESTORED SITES OR SITES AT RISK*

5.3.1 *Variations to the terms of planning permissions*

A site may remain abandoned or un-restored as a result of collapse of the operating company, or as a result of the operator or site owner delaying or refusing to meet the restoration conditions. Where no bond exists (or an inadequate amount has been collected) the LPA has legal redress under the planning permission and any Section 106 Agreement, but that process in itself can involve the LPA in major costs. These can arise from:

- Legal conduct and management of the process by council planners and legal advisers;
- Technical input to design, detail and cost the works needed to meet the restoration of the site in accordance with the planning permission and other environmental and design considerations; and
- Planning and technical input to monitor the site, particularly safety issues during potentially lengthy periods of inactivity, negotiation and legal procedure.

Furthermore, the merits of any legal procedure have to be assessed, not only in terms of the likelihood of the LPA winning an adequate award to recompense them for the action and to restore the site, but also in terms of the operator having any funds even if the legal process is successful.

If it is anticipated that an operator might fail to restore a site or if there is no or an inadequate bond and enforcement fails, there are few if any remedies to enable the planning permission conditions to be met. There are however, a few mitigation measures which can be examined, as outlined below:

- It may be appropriate to revise planning permission, to permit the extraction of more coal, or even other minerals to meet some special or local need, so generating additional income to the operator with the extended earthworks making some contribution to the progressive restoration of the existing site. These other minerals might include topsoil, clay or bulk fill material. However, unless the planning extension / variation is very large (thus generating significant revenues for the operator), it may not make a significant contribution to resolution of the initial restoration shortfall, but extend the life of a large operation. However, it could enable a limited bond arrangement to be put in place in respect of the extension to the original planning permission;
- A new planning permission for revised after-uses for the site, so generating enhanced residual land values. Such enhanced land values are unlikely to arise unless the proposed uses include significant amounts of built development, and this in itself is likely to reduce the extent and cost of surface restoration and aftercare;
- Major reconfiguration of the 'form' of restoration for the site. Usually, the dominant cost component of restoring an opencast site is the bulk earthmoving needed to replace the excavated overburden back into the void, usually to create a landform somewhat similar to the 'natural state' of the site. This cost can be reduced significantly by partially refilling the void, and reducing and softening the shape of the overburden mounds. The acceptability of such a change obviously depends on the extent and effectiveness of any revised restoration, and the quality of the final surface treatment, aftercare and re-vegetation. The costs of void filling and surface finishes will of course be further reduced if parts of the void are retained as water features; and
- Historically, some opencast voids have been used for the deposit of overburden from other operations or as land-fill sites. However, with the reduction in land fill, demanding associated geotechnical criteria, severe planning requirements, and the unlikely need to accommodate large volumes of overburden, it is unlikely that such a use would be available or have any significant impact on the problem.

Some of these options are being discussed, in combination at the Margam and East Pit sites, but each will have to be subject to scrutiny via planning application(s) and associated consultation.

In the event of complete failure of an operator or abandonment of an un-restored opencast site with no or an inadequate bond, LPAs could be faced with a situation similar to that in Scotland. As mentioned, to deal with emerging liabilities, the Scottish Abandoned Mines Restoration Trust has been established with a view to it seeking solutions to the legacy of unrestored and under bonded sites.

The funds which might become available to the Trust are thought to fall far short of that required for the intended (and previously agreed) restoration. The Trust will, it is understood, seek to iteratively develop alternative solutions which balance the requirements of a wide range of interests. It is hoped that this consensual approach will secure stakeholder 'buy-in' and support to a series of pragmatic and deliverable sustainable solutions.

5.3.2 *Bond Agreements*

In light of recent experience in Scotland and in view of some potential risks in Wales, it is essential that effective performance restoration bonds are put in place for all opencast coal operations. For smaller sites, a bank guarantee or insurance bond might be adequate, but for larger sites involving for example 0.2m tonnes or more of coal, cash bonds are much more effective because they avoid the need to contest quantum and justification of expenditure with a third-party bondsman. Where the proposed operator is a SPV, consideration should be given to obtaining Parent Company Guarantees.

The most appropriate configuration for a bond would seem to be that which involves an initial lump sum at commencement, to be increased against time or coal tonnage, at a rate which ensures that the accumulated bond is sufficient to restore the site should it be abandoned at any interim stage, or at the completion of coal extraction. The bond must also have a clear and effective method by which it can be released back to the operator to reflect restoration achieved and the resultant reduction in potential liability. Care should be taken to ensure the retention of sufficient funds to control and oversee those aftercare works needed to ensure long term success of the site restoration and establishment from the perspective of the LPA.

5.3.3 *Site Risks*

The vulnerability or risk of a shortfall of funds to restore an abandoned site is set out in Section 5.3. It must be emphasised that this study has not ventured into the standing or stability or intentions of the various operators and land owners. Neither has it considered the vulnerability of operations in the face of a somewhat unpredictable coal market. Judgement of the potential risks has had to rely on a broad assessment of what site restoration and aftercare of each site might cost at some time in the future. WG and LPAs might consider

carrying out, a search of company records, where available, to gain greater insight into the financial standing of particular operators.

5.3.4 Remedies

Once all of the planning, legal and bond remedies have been exhausted, yet come up short of restoring an abandoned site in accordance with its planning permission, the only available remedies seem to be those of mitigation. Inevitably, these can involve major re-design of site restoration, change of use as a means of generating greater residual site value, and reliance on less sophisticated but proven low cost techniques which rely on natural re-colonisation and regeneration over a long period. However, the first priority in using any limited funds must be to achieve site safety and stability, including the treatment of public hazards, achieving ground stability and stabilising water regimes. In the absence of sufficient resources, such emergency works may fall on the public purse.

5.3.5 Land Tenure

LPAs have suffered additional problems resulting from the transfer of unrestored sites in terms of achieving restoration and the ability to pursue landowners based overseas. Consideration should be given to attaching Protective Covenants to operating sites as part of the Section 106 agreement, with the intention of being able to retain legal access to the landowner.

Issues have also arisen in relation to restored sites being sold off to multiple owners prior to completion of the aftercare period. A mechanism is required to ensure that the LPA can still maintain effective control of the aftercare process.

5.4 OPEN CAST EXPERTISE AND PLANNING CONTROL

5.4.1 Resources within Local Planning Authorities - A Centre of Technical Excellence

There are currently ten opencast sites in South Wales described as active, and two additional sites seeking planning permission. These represent a considerable workload for technical specialists within a number of LPAs over a lengthy period, and their intimate knowledge of sites and continuity of involvement is essential if the oversight and management of the bonds on these sites is to be effective. Some LPAs might receive only one or two applications per decade, and hence be unable to fully employ, afford or retain such specialist staff.

Some commendable cooperative working has emerged in recent times, with one authority using the expertise of an adjoining authority which has more familiarity and experience of the challenges associated with opencast projects. Examples of this collaborative working include Carmarthenshire County Council having Service Agreements with Powys County Council in relation to Nant Helen and the restored Bryn Henllys sites, and the Neath Port Talbot

County Borough Council team providing monitoring and bond review services to Rhondda Cynon Taf County Borough Council at the Tower site. These arrangements could be the foundation for a Centre of Technical Excellence to provide specialised opencast services across Wales. In addition to achieving continuity of knowledge and involvement, such arrangements would have the double benefit of providing a more consistent workload to justify the retention of specialists and would also ensure that the other LPAs had the relevant expertise available. The remit of the Centre could also encompass the development of best practice guidance, drawing on expertise from the public and private sectors.

5.4.2 *Cooperation between LPAs and CA*

Both LPAs and the CA have clear legally defined roles in relation to the licencing and granting of planning permissions for opencast sites. However, in view of the challenges which both face, it would be beneficial if they could develop a closer working relationship and regular dialogue to enhance mutual understanding and exchange knowledge and experience. This could be achieved for instance by the CA attending meetings of the Wales Planning Officers Waste and Minerals Forum and by having regular meetings with those LPAs involved with opencast sites.

5.4.3 *Planning Regulation*

Consideration should be given to a review of *Minerals Technical Advice (Wales) Note 2: Coal, 2009*. The objective of the review would be to identify where policy guidance could be modified to ensure future robust restoration bonds are both calculated on a consistent and appropriate basis and mechanisms are in place to ensure these bonds remain accurate throughout project lifecycle (for instance via an annual review). Additionally, the possibility of using law making powers to enhance existing legislation with regards to the ability to hold mine operators to account in the event that restoration is not implemented as planned, even in the event of site sale. The 'polluter pays' principle which underpins *Part 2A of the Environmental Protection Act 1990* may offer a model which could be applied in the context of restoration.

5.4.4 *Drawing from International Best Practice Guidance*

A review of policy (see Section 3) has identified that international guidance and best practice has, in some aspects, a more clearly articulated approach and more robust mechanisms to achieve restoration; for instance:

- The International Finance Corporation has produced a Performance Standard (PS1) on closure and restoration which outlines the requirements of a Closure Plan, and the financial instruments that should be used to cover the cost of closure at any stage of project life, including early closure. It recommends that funding should be by either a cash accrual system (fully funded escrow or sinking funds) or a financial guarantee by a reputable financial institution. The

guidelines also state that mine closure needs should be annually reviewed and the funding arrangements adjusted accordingly;

- The World Bank's *"Towards Sustainable Decommissioning and Closure of Oil Fields and Mines: A Toolkit to Assist Government Agencies"* provides a framework to support the development of flexible but systematic regulatory approaches to key components of a sustainable decommissioning and closure planning and implementation and further emphasises the importance of *"capacity building and training of their technical staff, ... to ensure consistent implementation of best practice guidelines"*; and
- The international mining community generally places greater emphasis on early planning for closure than is the case in Wales, with notably more emphasis on the social aspects of mine closure. There would be benefit in promoting more public consultation on mine closure and after-use at the mine planning stage, as part of a requirement for more rigorous requirements for restoration planning.

In summary the international mining community and guidance generally places greater emphasis on early planning for closure than is the case in Wales, with notably more emphasis on the social aspects of mine closure. There would be benefit in promoting more public consultation on mine closure and after-use at the mine planning stage, as part of a requirement for more rigorous requirements for restoration planning

Annex A

LPA questionnaire

Annex A – LPA Questionnaire

Site	
#	Question
1	Name of the site, planning application number (including extensions) and conditions of consent.
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?
4	Who is the site owner?
5	Who is the operator of the opencast and restoration operations?
6	When was consent granted, including any extensions or variations?
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?
8	What was the length and nature of the management period?
9	Approximately how much coal has been extracted and how much is left under the licence?
10	What are the proposed after-uses?
11	What is the long term ownership / management proposal?
12	Has your Authority had to take any enforcement actions?
13	Does your Authority hold any restoration bond or surety?
14	Are you aware of any factors that may reduce the likelihood of successful restoration?
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?

Generic questions	
A	Is there potentially a greater role for the coal authority in securing successful restoration?
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?

Annex B

Questionnaire Results

Annex B Site Summary Sheets

Carmarthenshire County Council

Site	Glan Lash, Bryn Bach Coal Ltd - Llandybie, Carmarthenshire	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Glan Lash, Reference – E/24681 – Copy of the planning permission is attached indicating the conditions.
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Active and Operational;approximately 1 year into the operation.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site Area – 9.31 ha, G Ref – 261500 231600 (plan attached)
4	Who is the site owner?	Davies & Lumber Ltd
5	Who is the operator of the opencast and restoration operations?	Bryn Bach Coal Ltd
6	When was consent granted, including any extensions or variations?	25 th January 2012
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	31 st December 2017 (restoration) 31 st December 2022 (aftercare)
8	What was the length and nature of the management period?	Aftercare of 5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	Approx 21,500 tonnes removed and 71,000 tonnes remaining
10	What are the proposed after-uses?	Agriculture, woodland, ponds

11	What is the long term ownership / management proposal?	Site will be returned to the landowner
12	Has your Authority had to take any enforcement actions?	No
13	Does your Authority hold any restoration bond or surety?	Yes
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	No
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	No

Site	Dyinant Fawr, Dyinant Fach Colliery Company Ltd (Dissolved) - Tumble, Carmarthenshire	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Dyinant Fawr – Planning history L1st attached and details of the permissions (including conditions)
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Restoration completed on part of the site (yellow on attached plan) and aftercare continuing. Restoration has stalled on another part (green on attached plan).
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site Area – 32.7 ha. G Ref 252500 211800 – Plan of site attached
4	Who is the site owner?	Number of different owners – Andrew Golightly, Velma Golightly, Horizon Mining, Elvet Estates, John Howells
5	Who is the operator of the opencast and restoration operations?	Carmarthen Mining Ltd (Dissolved)
6	When was consent granted, including any extensions or variations?	See planning history list – latest permission 2 June 2008
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	30 June 2009
8	What was the length and nature of the management period?	Aftercare of 5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	Extraction amount unknown. Nothing left

10	What are the proposed after-uses?	Agriculture
11	What is the long term ownership / management proposal?	Returns to the landowners.
12	Has your Authority had to take any enforcement actions?	Yes
13	Does your Authority hold any restoration bond or surety?	Yes, but not enough to complete the restoration and aftercare.
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Insufficient Bond, Operating Company has been dissolved, inability of the landowner to complete what is required.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Yes.

Site	Cwm-yr-onnen, Bryn Bach Coal Ltd - Betws Mountain, Carmarthenshire	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Cwm-yr-onnen – Refs: E/15851, E/23173, E/25744 (site was originally within Neath Port Talbot but extended into Carmarthenshire). Copies of permissions attached
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Restoration completed and aftercare commencing on the final phases.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site Area – 11.75ha, G Ref: 267900 210400 – plan attached
4	Who is the site owner?	Betws Common Holdings Ltd
5	Who is the operator of the opencast and restoration operations?	Bryn Bach Coal Ltd
6	When was consent granted, including any extensions or variations?	Permissions granted: 28 March 2008, 9 December 2010, 20 January 2012
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	31 March 2012
8	What was the length and nature of the management period?	Aftercare period of 5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	Approximately 56,500 extracted. Nothing left.

10	What are the proposed after-uses?	Mountain pasture land
11	What is the long term ownership / management proposal?	Returns to Commonors
12	Has your Authority had to take any enforcement actions?	No
13	Does your Authority hold any restoration bond or surety?	Yes
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	No
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	No

Generic questions		
A	Is there potentially a greater role for the coal authority in securing successful restoration?	Possibly. It's difficult to say without knowing what that might be.
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?	The key to successful restoration is Financial Restoration Guarantee Funds held by the Local Authority. If we have sufficient money in the bank we can carry out any default action. The problem with restoration is primarily the result of very badly thought out privatisation of the coal industry which left working sites with no restoration guarantee funds. This exposed LPA's to significant risks.

Neath Port Talbot County Borough Council

Site		
Selar North, Celtic Energy Ltd Glynneath, Neath Port Talbot		
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Selar North ---approved under P2009/1040 on 21 st July 2010-- 94 conditions
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Operational and broadly on course with mining programme of consent. Progressive restoration undertaken and former void completely backfilled.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	380 hectares SN885050 South of Glynneath
4	Who is the site owner?	Sycamore Regeneration Inc (subsidiary of Oak Regeneration) and partly Celtic Energy Ltd, and Mrs Maureen Morgan Hendrewyddil farm.
5	Who is the operator of the opencast and restoration operations?	Celtic Energy Ltd
6	When was consent granted, including any extensions or variations?	21 July 2010
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Consent granted for 5 years coaling to cease before 12 August 2015.
8	What was the length and nature of the management period?	Partly 5 and partly 10 years.
9	Approximately how much coal has been extracted and how much is left under the licence?	700k extracted; some 550 k left
10	What are the proposed after-uses?	Mountain grazing/improved grasslands/woodland/wetlands grasslands with species enhancement and formation/management of a nature reserve.
11	What is the long term ownership / management proposal?	Landowner/Celtic Energy/ potential nature trust control of nature reserve.
12	Has your Authority had to take any enforcement actions?	No

13	Does your Authority hold any restoration bond or surety?	Yes (currently £20 million to increase to £22 million by April 2014.)
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Not presently on this site.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	No
16	Do you have any thought on how best to take forward the existing recommendations?	<i>Note A further consent has been granted in principle by Planning committee on 3rd December 2013 subject to the signing of a S 106 agreement which includes the increase of the bond to £23.5 million. If agreement signed the site would have a further 800k of coal to be won inside the site boundary.</i>

Site	East Pit East Revised, Celtic Energy Ltd - Gwaun-Cae-Gurwen, Neath Port Talbot	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	East Pit East Revised OCCS (called in application Ref A-PP185 -07-014) 65 conditions.
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Approved coaling period expired on 30 November 2012.- Two applications submitted – P2012/1073 (registered December 2012) to extend coaling operations and carry out built development following coaling and leave lake in void.) Separate Section 73 A application P2013/0530) to regularise current coaling since November 2012 and to allow coaling to be completed under 2004 consent.). No enforcement undertaken – consideration of applications continuing.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Grid Reference SN730 130 400 hectares
4	Who is the site owner?	Pine Regeneration (subsidiary of Oak Regeneration)
5	Who is the operator of the opencast and restoration operations?	Celtic Energy Ltd

6	When was consent granted, including any extensions or variations?	Last consent granted 7 th December 2004 (consent expired as above)
7	When was it scheduled for: coaling, filling and reshaping, vegetating?	30 th November 2012 and backfilling to be completed by 31 May 2015.
8	What was the length and nature of the management period?	5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	See above regarding planning permission period- however some 2.1 million tonnes were anticipated to be won at start of scheme.some 1.5 million tonnes extracted by mid 2013 coaling continuing and remaining coal still being extracted some 600 k left .
10	What are the proposed after-uses?	General mountain/common grazing some 350 hectares and some 50 hectares of improved agriculture and scattered woodland.
11	What is the long term ownership / management proposal?	Common grazing under previous 2004 consent- (as background country park/lake hotel lodges in undetermined lakes application P2012/1073)
12	Has your Authority had to take any enforcement actions?	Considered enforcement action in early 2013- submission of regularisation application means that this action suspended at the present time.
13	Does your Authority hold any restoration bond or surety?	Bond being provided on £2/tonne of coal basis based on Welsh Government approval in 2004. Currently approximately £3million in place
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Inadequate restoration bond and potential difficulty in achieving full restoration. However this is totally dependant upon whether the developer/landowner did not complete restoration..
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Current working and outstanding applications will determine what difficulty we may have in the future.
16	Do you have any thought on how best to take forward the existing recommendations?	Site specifically the determination of the current applications would bring forward a position to consider enforcement

Site	Margam Surface Mine, Celtic Energy Ltd - Kenfig, Neath Port Talbot	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Margam extension OCCs (original consent granted in 1999) extension of time approved under P2006/1727)
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Ceased coaling in October 2008- Appeals and court proceedings undertaken until late 2011. Complex position regarding enforcement and action – ongoing dialogue with Bridgend CBC and landowner etc
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Approx 197 hectares (including area in BCBC) approx 97 hectares in NPTCBC. SN 840185
4	Who is the site owner?	Beech Regeneration (subsidiary of Oak Regeneration)
5	Who is the operator of the opencast and restoration operations?	Last operator was Celtic Energy Ltd
6	When was consent granted, including any extensions or variations?	Last consent granted 19/12/07 (extension of time)
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	October 2008 after agreement of extension of time under condition. Restoration was conditioned to be complete by 31 st December 2010.
8	What was the length and nature of the management period?	5 years for agriculture a further 5 years for wetlands/woodlands
9	Approximately how much coal has been extracted and how much is left under the licence?	All coal extracted no reserve left
10	What are the proposed after-uses?	Agriculture/nature conservation/wetlands and woodlands.
11	What is the long term ownership / management proposal?	Land owner
12	Has your Authority had to take any enforcement actions?	Considered and pending
13	Does your Authority hold any restoration bond or surety?	£5 million
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Land ownership/flooded void / operator not present
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Potential problems although continuing discussion with landowner on other schemes however no clear direction at this present time.

16	Do you have any thought on how best to take forward the existing recommendations?	Extended legal opinion still being undertaken.
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Site	Nant-y-Mynydd Site, Energybuild Ltd - Glynneath, Neath Port Talbot	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Nant Y Mynydd Surface Mine P2004/0443 ---59 conditions
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Completed coaling and sandstone extraction and site under restoration.(Site backfilled and most of the major earthworks complete) .Drainage and soil distribution to be completed before landscaping
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site area- 75 hectares, Grid reference SN852070 west of Glynneath
4	Who is the site owner?	Natural Resources Wales (Forestry commission) and Aberpergwm Estate
5	Who is the operator of the opencast and restoration operations?	Energybuild Ltd
6	When was consent granted, including any extensions or variations?	Planning Permission granted 17 May 2005.
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Coaling and sandstone extraction to be completed by July 2012. Restoration due to be complete by December 2012 under the submitted restoration scheme. Continuing restoration works have not required enforcement and some works were delayed by weather conditions. All restoration works are anticipated to be complete before November 2013. Landscaping will follow and seeding at appropriate times of the season in accordance with a comprehensive approved scheme.
8	What was the length and nature of the management period?	5 years.
9	Approximately how much coal has been extracted and how much is	All coal and sandstone extracted .

	left under the licence?	
10	What are the proposed after-uses?	Combination of woodland, acidic grassland wetlands .
11	What is the long term ownership / management proposal?	Forestry land in the ownership(999 year leasehold by Natural Resources Wales)
12	Has your Authority had to take any enforcement actions?	No however enforcement action was threatened for restoration scheme submission.
13	Does your Authority hold any restoration bond or surety?	Yes £3.1 million (Guaranteed by Insurance Company)
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Nothing at present.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Energybuid and parent company have been affected by down turn in coal prices, however continuing application of works should achieve afteruse objectives and sufficient bond available.
16	Do you have any thought on how best to take forward the existing recommendations?	

Site	Bwlch Ffos, Horizon Mining Ltd - Resolven, Neath Port Talbot	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Bwlch Ffos Mining site (Previous consent expired) P2008/0273)- Planning application for continued operation Under P2012/0333 still undetermined and subject to additional information. Application should be determined in early 2014.
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Continuing coaling and current application to regularise and complete coaling and sandstone extraction to be completed.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Approximately 30 hectares, grid reference SN870025; south of Resolven near Neath
4	Who is the site owner?	Natural Resources Wales (Forestry Commission)

5	Who is the operator of the opencast and restoration operations?	Horizon Mining Ltd
6	When was consent granted, including any extensions or variations?	First approval granted under P2002/0419 however extension of time and additional sandstone extraction within the same site under P2008/0273 and granted on 28 th May 2008.
7	When was it scheduled for: coaling, filling and reshaping, vegetating?	Coaling was limited to 1 st March 2012. Mothballing of site has meant that there are still reserves left unworked – Hence current application being considered under P2012/0333.
8	What was the length and nature of the management period?	5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	See above- approximately 30k of coal and 100k of sandstone in the current application
10	What are the proposed after-uses?	Mosaic of forestry woodland, acidic grassland, wetlands .
11	What is the long term ownership / management proposal?	Natural Resources Wales, Forestry Commission
12	Has your Authority had to take any enforcement actions?	Not to date.
13	Does your Authority hold any restoration bond or surety?	Yes £775k in existing bond
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	No
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Some delays in carrying out restoration of worked out areas but opportunity to review bond under current application.
16	Do you have any thought on how best to take forward the existing recommendations?	<i>Note: Parent company has gone into administration but site continuing,. Adequate bond to achieve restoration in place if necessary.</i>

Site	Forest Quarry 2 Extension- remaining coal being completed. (adjacent and incorporating part of the Nant Y Mynydd site)- (Horizon Mining Ltd) (incorporates Sarn Helen)	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Forest Quarry 2 Extension OCCS P2010/0666 55 Conditions
2	Status – for instance consented (but yet to commence), active and	Coaling ceased in October 2013. (Coaling permission expired

	operational. At what stage is the site at currently?	previously and enforcement considered). Progressive restoration being undertaken.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	69 hectares SN 842068 west of Glynneath
4	Who is the site owner?	Natural Resources Wales
5	Who is the operator of the opencast and restoration operations?	Energybuild Ltd
6	When was consent granted, including any extensions or variations?	Consent granted 20 October 2010.
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	December 2012 with restoration to be completed by May 2012. Continued liaison with operator and impending application anticipated soon to consider the use of the site as Mine Waste Repository for mine waste for the Aberpergwm deep mine.
8	What was the length and nature of the management period?	5 years.
9	Approximately how much coal has been extracted and how much is left under the licence?	Approximately 6000 tonnes remain at 10 Sept 13.
10	What are the proposed after-uses?	Forestry /acidic grassland / wetland
11	What is the long term ownership / management proposal?	Forestry
12	Has your Authority had to take any enforcement actions?	Considered action at present time- submission of application anticipated in January 2014.
13	Does your Authority hold any restoration bond or surety?	Yes £835k
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Some degree of concern if existing bond provision is sufficient however substantial restoration can be achieved. To be reviewed in proposal as mine waste repository.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Potential difficulties however likely to be secure to restore.
16	Do you have any thought on how best to take forward the existing recommendations?	

Generic questions		
A	Is there potentially a greater role for the coal authority in securing successful restoration?	Yes there is a requirement to see a more coordinated approach to restoration and the liabilities left by operators. In respect to licence provisions potentially the consideration of a “fit and proper person” when any additional licences are applied for when other outstanding sites may have delayed restoration/aftercare.
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?	
c	We understand from information you have supplied that: The following site is undergoing restoration - Nant Y Mynydd- (Energybuild Ltd). That the following sites are in aftercare: - Parc Level - Located nr Rhiwfawr nr Cwmllynfell (LRD Mining Ltd) - Ynysdawley nr Nant Y Cafn Seven sisters. (Newsheme Ltd) - Nant Hir /Nant Melyn Seven Sisters (formerly operated by Energybuild Ltd- aftercare being undertaken by Natural Resources Wales(Forestry Commission) - Cwm Yr Onnen- - cross boundary site with Carmarthen Cc- (	A further site on the list is Forest Quarry Area 1 OCCS which is in aftercare. Secure restoration and aftercare is to secure adequate funds and added resources for enforcement.

	site located nr Rhyd Y Fro north of Pontardawe) (Bryn Bach Coal Co Ltd) Based on the above site specific questions do you have any comments to make regarding lessons learnt on how best to secure sustainable restoration of open cast sites?	
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Rhondda Cynon Taf County Borough Council

Site	Tower Colliery Surface Mining Site - Tower Regeneration Ltd. Hirwaun, Rhondda Cynon Taff	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Tower Colliery Surface Mine Plg Ref 10/0292/10 Permission issued 16/12/2011 with a Section 106 Agreement and 95 Conditions.
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Active and operational. Phase two.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	253 hectares Grid Ref 292607,204281
4	Who is the site owner?	Tower Colliery Ltd and A Morgans Farms Rhigos.
5	Who is the operator of the opencast and restoration operations?	Tower Regeneration Ltd (TRL)
6	When was consent granted, including any extensions or variations?	16/12/11
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Condition 3 requires the coal extraction to cease 7 years from commencement of extraction (March 2012) and restoration to be completed within 8 years of the commencement of excavation.
8	What was the length and nature of the management period?	Areas to be restored to agriculture have an aftercare period of 5 years, all other land has an extended period of aftercare for 25 years.
9	Approximately how much coal has been extracted and how much is left under the licence?	Tower advise that the license extends to 5.8 million tonnes, and to date Tower have mined 713,900 tonnes. As 300,000 tonnes need to be left unworked for stability reasons, by difference there is approx. 4,786,100 tonnes to be mined.
10	What are the proposed after-uses?	As part of planning permission Ref 10/0292 the site should be restored

		for agriculture, nature conservation and an environmental resource centre.
11	What is the long term ownership / management proposal?	A large portion of the site is allocated for employment purposes as part of Policy NSA 8 (Northern Strategy Area) of the Rhondda Cynon Taf LDP. Most of this land is owned by Tower Colliery Ltd. The land owned by A Morgans Farms is due to be restored to agricultural purposes. The remainder of the land is to be restored for nature conservation purposes with agricultural management; this is also owned by Tower Colliery.
12	Has your Authority had to take any enforcement actions?	The Council have issued a number of letters and one formal warning letter re the compliance with the conditions of the planning permission.
13	Does your Authority hold any restoration bond or surety?	Yes as a cash deposit. Upon execution of the S 106 Agreement, the Developer was required to pay £4 million and then pay £500,000 in advance every month until a total of £10 million had been paid. The Bond now stands at £10 million. Every year this amount is to be reviewed, as works progress. The monies will be released on completion of the restoration requirements and site clearance, whilst retaining sufficient monies for the Local Authority monitoring and aftercare requirements.
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	The owner may well sell some of the site, and/or submit a planning application for alternative uses on the site, before it is fully restored. There may be the desire to use an alternative restoration technique on the agricultural land to the one approved. The Local Authority is unaware of the agreements that are in place between all land owners, lessees' etc which also may effect the success of the approved restoration scheme.

15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	There may be a desire by the owner / operator to reduce the costs of the final restoration works, which may result in works of a reduced standard being implemented. The operator does raise issues that need to be resolved and the workings are often not exactly in accordance with the approved plans. As long as these do not raise matters of significance to impact on local residents or the environment and works are generally in accordance then the Local Authority has taken the pragmatic approach and agreed to them. Hence the site requires regular monitoring.
16	Do you have any thought on how best to take forward the existing recommendations?	Perhaps all mineral officers could be part of the consultation process regarding your recommendations.

Generic questions		
A	Is there potentially a greater role for the coal authority in securing successful restoration?	It would be helpful if there was another body, or bodies, apart from the Local Authority, which was involved in helping to secure a successful restoration, and had some additional powers.
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?	It needs to be recognised that the monitoring of opencast sites takes a considerable amount of resources in terms of site visits, attendance at working parties and site liaison meetings as well as liaison with the operator, land owner as well as other statutory agencies such as National Resources Wales and internally with legal, enforcement, drainage public health and protection, highway and countryside officers.

		The financial guarantee needs to be a sum of money deposited in an account similar to an Escrow account, in order for the Local Authority to have ready access to the monies and not be reliant on a Bondsman or similar body. There is a lack of expertise in dealing with mineral matters within Local Authorities. There is also a lack of expertise in assessing the amount of any restoration bond. Perhaps the Coal Authority could help to address the above matters.
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Bridgend County Borough Council

Site	Margam Surface Mine. Celtic Energy Ltd	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Margam mine,Cefn Cribbwr,bridgend.Planning permission Ref no.s P/98/377/MIN;P/06/1478/RLX
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Dormant.Coaled out.Awaiting restoration and aftercare.Ongoing discussion between all parties/and likely enforcement to achieve dewatering of the void and commencement of final restoration and aftercare.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Approximately 200 ha but only 110ha within the BCBC admin area. Grid reference:285015 183951
4	Who is the site owner?	Oak Regeneration (formerly owned by Celtic Energy)
5	Who is the operator of the opencast and restoration operations?	CE have responsibility for the void only under the terms of the license from the Coal Authority.
6	When was consent granted, including any extensions or variations?	Planning consent initially granted in 1998. .Full site history attached.
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Completion of coaling 2007/8.Restoration and aftercare was due to commence immediately after the cessation of coaling.
8	What was the length and nature of the management period?	5 year aftercare for agriculture with extended aftercare for woodland/nature conservation (10yrs) as per S.106 agreement. See attached.
9	Approximately how much coal has been extracted and how much is left under the licence?	Approx.2mt? A small amount of coal remains according to CE on the western edge of the void.
10	What are the proposed after-uses?	Agriculture/12.5 ha reedbed
11	What is the long term ownership / management proposal?	Oak Regeneration are currently formulating a regeneration scheme for the site(further opencast/housing/energy generation)

12	Has your Authority had to take any enforcement actions?	Enforcement action is imminent
13	Does your Authority hold any restoration bond or surety?	Escrow account for the sum of £5.2 m. Cost of restoration/aftercare estimated at £50m+
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	If the proposed regeneration scheme is approved there is no guarantee the full scheme including restoration will be implemented. If the scheme is refused planning permission, no doubt appeals will be lodged to prolong the need to address the expenditure of restoration/aftercare.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	There have been ongoing discussions with NPTCBC over the last 2-3 years to try and achieve the restoration of the site.
16	Do you have any thought on how best to take forward the existing recommendations?	Notwithstanding the possibility of a regeneration scheme being submitted there is a need to take enforcement action

Powys County Council

Site	Nant Helen, Celtic Energy Ltd - Coelbren, Powys	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Nant Helen, Reference P/2011/0217. (A copy of the current planning permission is attached.)
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Active and Operational. Approximately 5 years coaling remaining.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site Area: 345 hectares, Grid Ref: 282140 211230 (plan attached)
4	Who is the site owner?	Ash Regeneration Incorporated
5	Who is the operator of the opencast and restoration operations?	Celtic Energy Ltd
6	When was consent granted, including any extensions or variations?	Latest permission granted 9 March 2012. Previous permission granted 21 July 1998 (at Appeal).
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Extraction to be completed by 31 December 2018 and Restoration by 30 June 2021.
8	What was the length and nature of the management period?	Aftercare period of 10 Years for all areas
9	Approximately how much coal has been extracted and how much is left under the licence?	Approximately 3.5 million tonnes extracted and 2 million tonnes remaining.
10	What are the proposed after-uses?	Grassland and nature conservation areas
11	What is the long term ownership / management proposal?	Unknown
12	Has your Authority had to take any enforcement actions?	No
13	Does your Authority hold any restoration bond or surety?	Yes
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	The bond is incremental. It is currently standing at £6 million and rises to £30 million by September 2017. Payments of £1.5 million per quarter are required up until that time. If the Company were to cease operating prior to the full bond being in place there would be

		insufficient funds to cover restoration. There may be insufficient funds in any case even at that time. Some potential for fragmentation of ownership. Owners are registered in the British Virgin Islands which could give rise to difficulty in taking enforcement action.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	No difficulties at the present time.
16	Do you have any thought on how best to take forward the existing recommendations?	

Site	Bryn Henllys (or BBNO), Celtic Enegy Ltd - Powys	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Brynhenllys, Ref: B.5596. Copy of conditions attached (Appeal Decision)
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Site restored. Aftercare remains on a small section of the site (7.4 hectares) until April 2014.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	Site area 219 hectares, grid ref: 276250 212420 (plan attached)
4	Who is the site owner?	Mr Will Davies, Celtic Energy Ltd, Mr D. Hopkins
5	Who is the operator of the opencast and restoration operations?	Celtic Energy Ltd
6	When was consent granted, including any extensions or variations?	Permission Granted 13 May 1993
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Completion of coaling: September 2000. Restoration by September 2003. (Was not actually completed until April 2009)
8	What was the length and nature of the management period?	Aftercare period of 5 years
9	Approximately how much coal has been extracted and how much is left under the licence?	Amount extracted is unknown but none remaining.
10	What are the proposed after-uses?	Woodland, grassland and nature conservation

11	What is the long term ownership / management proposal?	The vast majority of the land has been sold off. Celtic Energy retains about 6 Hectares.
12	Has your Authority had to take any enforcement actions?	No
13	Does your Authority hold any restoration bond or surety?	No
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	The lack of a restoration bond. The ability of the landowners to undertake the required works.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	We have experienced difficulty with one of the landowners who refused to accept that restoration was complete and refused to undertake any aftercare works. By the time this issue was resolved it was too late to carry out any meaningful aftercare works.
16	Do you have any thought on how best to take forward the existing recommendations?	

Generic questions		
A	Is there potentially a greater role for the coal authority in securing successful restoration?	
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?	

Merthyr Tydfil County Borough Council

Site	Ffos-y-Fran Land Reclamation Scheme, Miller Argent (South Wales) Ltd - Cwmbargoed, Merthyr Tydfil	
#	Question	Answer
1	Name of the site, planning application number (including extensions) and conditions of consent.	Ffos-Y -Fran Land Reclamation Scheme. Original permission – P/03/0225 (Copy of permission attached with conditions). Permission to vary Condition 37 to allow the limited despatch by road of up to 50,000 tonnes of coal per annum – P/08/0316 (Copy of permission attached with conditions).
2	Status – for instance consented (but yet to commence), active and operational. At what stage is the site at currently?	Active and operational. Currently implementing phase 2 of the scheme.
3	What is the site area and location? (Ideally grid reference and shape files / pdf for location)?	The site is approximately 406 hectares in size and lies on the eastern edge of Merthyr Tydfil, about 1.5 km east of the town centre. It is bounded to the west by the A4060 trunk road, to the north east by Trecatti landfill site, to the east by the Unitary Authority boundary between Merthyr Tydfil and Caerphilly, to the south west by the Mountain Hare to Fochriw Common road, extending approximately one km to south of this road and to the south west of the Cwmbargoed mineral railway line (Site area is shown on the attached plan).
4	Who is the site owner?	Miller Argent (South Wales) Limited

5	Who is the operator of the opencast and restoration operations?	Miller Argent (South Wales) Limited
6	When was consent granted, including any extensions or variations?	P/03/0225 granted permission 11 th April 2005. P/08/0316 granted permission 6 th May 2011.
7	When was it scheduled for: completion of coaling, filling and reshaping, vegetating?	Completion of coaling approximately 2021/2022. Completion of final restoration approximately 2025.
8	What was the length and nature of the management period?	The programme of maintenance and aftercare will be carried out for a period of 5 years after the restoration works. Particular attention will be paid to grazing control, appropriate fertilizer application, soil structure development and drainage.
9	Approximately how much coal has been extracted and how much is left under the licence?	Approximately 4.3 million tonnes extracted, leaving 6.7 million tonnes of reserve.
10	What are the proposed after-uses?	The primary land use proposed on the restored site will be to return it to its former use as urban common land for stock grazing, with public access for recreation.
11	What is the long term ownership / management proposal?	Majority of land returned to commoners on completion of the scheme.
12	Has your Authority had to take any enforcement actions?	No

13	Does your Authority hold any restoration bond or surety?	
14	Are you aware of any factors that may reduce the likelihood of successful restoration?	Potential long term management issues when land returned to urban common.
15	Are you currently experiencing, or do you envisage any difficulties regarding final restoration of the site?	Potential issue relating to the volume of recovered soil/soil forming material.
16	Do you have any thought on how best to take forward the existing recommendations?	

Generic questions		
A	Is there potentially a greater role for the coal authority in securing successful restoration?	The coal authority may be able to provide greater support to local planning authorities when considering the restoration of open cast schemes based on their experience and technical expertise within this area.
B	Can you suggest any changes needed in legislation, policy or through other means to best ensure successful restoration and whether these changes are within the control of UK, Welsh Government or Local Planning Authorities or within the industry itself?	Best practice for securing financial guarantees could be included in future revisions to MTAN 2: Coal. This could cover overviews of the different mechanisms available and guidance on how to ensure that the finances secured are sufficient to meet restoration and aftercare obligations. The latter could include generic formulas for calculating financial guarantees.

Annex C

Coal Authority Data

Annex C – Coal Authority Data

Site	Operator	Location	Area (ha)	Worked (Tonnes)	Remaining (Tonnes)	Remarks
Bwlch Ffos	Horizon Mining Ltd.	Resolven, Neath Port Talbot	42	44,655	22,345	Operating sandstone quarry with occasional coal production
Dynant Fawr	Dynant Fach Colliery Company Ltd. (Dissolved)	Tumble, Carmarthenshire	10	100,788	0	Small closed site - restoration incomplete East Pit
East Pit	Celtic Energy Ltd.	Gwaen-Cae-Gurwen, Neath Port Talbot	393	5,283,559	686,514	Large operating site
Ffos-y-Fran Land Reclamation Scheme	Miller Argent (South Wales) Ltd.	Cwmbargoed, Merthyr Tydfil	118	4,197,193	6,602,807	Large operating site
Glan Lash	Bryn Bach Coal Ltd.	Llandybie, Carmarthenshire	4	8,920	83,580	Small operating site
Margam Surface Mine	Celtic Energy Ltd.	Kenfig, Neath Port Talbot	187	3,972,292	0	Large closed site - restoration incomplete
Nant Helen	Celtic Energy Ltd.	Coelbren, Powys	622	7,983,775	2,282,560	Large operating site
Nant-y-Mynydd Site	Energybuild Ltd.	Glynneath, Neath Port Talbot	76	520,973	109,027	Small operating site
Selar	Celtic Energy Ltd.	Rhigos, Neath Port Talbot	150	5,143,645	676,355	Large operating site
Tower Colliery Reclamation Site	Tower Regeneration Ltd.	Hirwaun, Rhondda Cynon Taff	131	690,469	5,209,531	Large operating site

Annex D

Minutes from Coal Authority Meeting

Annex D – Minutes from Meeting with Coal Authority

Meeting with Coal Authority (CA) at Mansfield HQ, 11/09/2013

Present: Simon Cooke and Paul Heap of CA and Roderick Ellison and Gwyn Griffiths of ERM.

The CA confirmed that the sites they supplied detail of were limited to active sites. We discussed the licence surrender process and how licences were surrendered after approval of a Satisfactory Condition Report.

The area of the CA licence for any prospect defines the area of the coal to be extracted, taking account of:

- The plan area of multiple seams;
- The area necessary to excavate the approved coal safely, namely the outline of the limit of excavation;

The CA licence and associated lease incorporate two larger areas, namely

- The Area of Responsibility for coal-mining subsidence damage; and
- The Surface Hazard area, within which the operator is responsible for surface hazards existing as a result of the coal-mining operations. This included mineshafts and shallow old working collapses.

Licences for such coal extractions can usually be surrendered once operations / restoration reaches a level where all significant liabilities that would fall on the CA have been satisfactorily addressed.

We discussed extension to existing sites – Selar has extension proposed plus potentially two others.

Gwyn Griffiths recalled private opencast licences pre-privatisation having to make National Coal Board royalties payments of circa £15 per tonne. Such mines were limited to 25,000 tonnes of coal, with a potential 100 % over-run due to ratio or seam thickness, providing they did not form part of a larger reserve.

The CA confirmed that at privatisation, no royalties were charged on newly licenced sites that were passed to the private sector from British Coal. Sites subsequently licenced had negotiated royalties until April 2003 and then a fixed royalty which has risen from 10p per tonne in 2003 to 17p per tonne currently.

At privatisation, licenced sites that were operating and passed to the three large successor companies normally did not have any form of planning restoration bond. This also applied to some future sites with conditional licences that remained in place for 10 years after privatisation. It is therefore

only those new sites or extensions which have received planning permission after that deadline which have any form of bond in place.

The CA explained that they are not able to have any "Fit and Proper" test of potential operators, in that if companies or operators are legally constituted or permitted to operate, under the law, the CA has no basis or justification upon which to prevent granting them a licence if they satisfy the Authority's licencing requirements.

As background information, the CA indicated that current UK coal consumption is between 40 m and 50 m tonnes per annum, of which, approximately 17 m tonnes was mined in the UK in 2012. They went onto state that with the three remaining deep mines having limited estimated resources left this might fall. Wales was seen as having a more advantageous position than other areas within the UK, albeit dependent upon two major consumers, namely RWE's Aberthaw Power Station and Tata steelworks at Port Talbot.

In discussing further, the UK picture and potential issue of non-restoration , the CA indicated that in Scotland with the demise of Scottish Coal and ATH Resources, there were approximately 20 former sites either unrestored or with only partial restoration. We discussed how this will probably have to result in a pragmatic approach involving a major change in the level and type of restoration, making use of what funding is available, coupled with community buy-in to alternative solutions. A body called the Scottish Mines Restoration Trust has emerged in Scotland and seems to be effective in brokering compromise solutions. We discussed whether such a body might be useful in Wales.

http://coalactionscotland.org.uk/wp-content/uploads/2013/05/SMRT_PresentationvRGTask-Force.pdf

Simon Cooke added that there might be a CA role in such a process, in particular in providing a monitoring / advice role in Wales with the CA acting as an honest broker.

We discussed the various active sites. It was noted by the CA that Tower Colliery had strong restoration bonding, that Nant Helen was also well bonded and that at East Pit an alternative restoration strategy had been applied for. We also discussed a new site (subject to a planning application in Rhonda), the Varteg planning application and potential new small sites which the Forestry Commission (now NRW) are investigating promoting on their land.

The general CA view was that with the exception of Margam and possibly East Pit, the other large sites should be successfully restored. However, ERM were of the opinion that for some sites a changed approach (from the conditioned restoration schemes) might be necessary considering the availability of bonds for some of the more complex sites. ERM suggested that

a depressed or deteriorating coal market linked to emissions regulation, shale gas and world competition could result in more sites being at risk of not being restored.