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Economic Development, Regeneration & Sustainability

Independent Economic Impact Assessment of Proposed Open Cast Mining at Nant Llesg, Rhymney

Final Report

Prepared for Caerphilly County Borough Council

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Executive Summary

Introduction

Hardisty Jones Associates (HJA) has been appointed by Caerphilly County Borough Council (CCBC) to provide independent research and assessment of the economic impacts of the proposed open cast development at Nant Llesg, Rhymney.

The proposed development is referred to as the Nant Llesg Surface Mine (NLSM). The site lies to the immediate west of Rhymney within Caerphilly County Borough and extends to some 478.1 hectares, of which 222.8 hectares will be operational. The proposed development will excavate some 6 million tonnes of coal from a 96 hectare excavation area. The total period of operations will extend to 14 years, of which 10 years will be active coaling. The proposals include land remediation. A further five year period of aftercare will follow the operational period.

HJA was asked to consider:

- The local economy in and around Rhymney
- The economic impacts of the Ffos-y-Fran Land Reclamation Scheme (FLRS), a nearby surface mine operated by the applicant
- The likely direct, indirect and induced impacts of the proposed NLSM
- The potential impacts on the local economy, inward investment and specific workforce groups.

In keeping with the documentation submitted by the applicant (Miller Argent) the analysis considered both an immediate local impact zone around the settlement of Rhymney and a wider 10 mile impact zone which encompasses all or parts of Blaenau Gwent County Borough, Caerphilly County Borough, Merthyr Tydfil County Borough, Powys County and Rhondda Cynon Taff County Borough.

The Local Economy

Both the applicant and objectors present a broadly consistent picture of the immediate impact zone around Rhymney although there is some variation in interpretation and emphasis.

This report provides further detail on the 10 mile impact zone. The economic challenges, particularly in terms of employment opportunity, labour market participation and deprivation are well known and the analysis confirms this. The challenges in the immediate impact area around Rhymney are particularly acute. However, the challenges are also notable in the 10 mile impact zone when compared to Wales and England & Wales averages.

The evidence from the 2011 Census of Population regarding labour market participation suggests there is no cause to suggest the challenges for males or females are any more or less acute than for the other group. This is notable given the variant interpretations put on the data by the applicant and objectors.

What is clear is the need for increased employment opportunity in the Rhymney area to meet the needs of residents to tackle a worsening employment situation. Particularly given a reliance on manufacturing employment and forecast decline in employment in this sector.

Economic Impacts of FLRS

The FLRS includes a large surface mining operation lying immediately to the south of the A4060 to the south and east of Merthyr Tydfil town. The total FLRS site extends to some 400 hectares. The coal reserve is estimated at around 11.4 million tonnes. The approved scheme will run for 17.5 years from commencement of operations in 2007.

HJA has accessed relevant data from documentation submitted by Miller Argent and its advisors in support of its planning application at NLSM. This has been supplemented with information gathered through a consultation with Miller Argent. There has also been consultation with Merthyr Tydfil CBC economic development team.

It is notable that although there are similarities between the schemes, given their close proximity to one another, there are also differences in terms of the way the mines relate to nearby settlements (in terms of geographical relationships). CCBC is still considering matters of dust, noise and visual impact which might have consequential effects on economic impact.

When considering direct, indirect and induced employment effects total employment created by FLRS is estimated at 333-343 jobs, of which more than 80% are located within the 10 mile impact zone and 66% are filled by residents of the impact zone. Gross annual wages supported by FLRS are estimated at around £11 million per annum. Some £9 million per annum is paid to workers who work within the 10 mile impact zone. A little over £7 million is paid to residents of the 10 mile impact zone.

Discussions with Merthyr Tydfil CBC indicate that there have been no reported negative impacts on the wider business and economic environment. Business activity in close proximity to the site has continued and delivered growth. The wider Merthyr Tydfil economy has benefited from wider investment activity but there is no suggestion FLRS has limited the impact of this, despite fears this would be the case before FLRS commenced operations.

Proposed NLSM Development

The site of the proposed NLSM is currently used for open grazing and informal recreational use. In purely economic terms it provides a very limited contribution to the local economy. Without the NLSM investment there are no significant alternatives to the proposed use, and the site would continue in its current use for open grazing and informal recreation. The remediation activities which form part of NLSM will not facilitate any intensification of use on the site post completion.

The number of jobs created is based on operational planning undertaken by Miller Argent. The FLRS has been used as a basis for this operational planning. Synergies in the management operations for FLRS and NLSM have been accounted for in the job numbers stated. The majority of employment is within the operative workforce which is based on a ratio of one operative per piece of plant.

The Miller Argent analysis quotes a range of 144-239 on-site jobs. This is an average over a 14 year period from commencement of site operations to completion of site restoration. The figures quoted include all on-site jobs. Miller Argent estimates that 26 workers would be contracted to suppliers, with the remainder 118 – 213 being directly employed by Miller Argent. The range in job numbers

quoted relates to the Working Time Directive (WTD). The WTD sets a limit of a 48 hour working week for employees within the EU. However, it is possible for employees to opt out of this and work for longer hours. Should all workers wish to work a maximum of 48 hours per week, or should legislation change to remove the opt-out the higher number of jobs would be created. Miller Argent would then operate a split shift operation at NLSM. Miller Argent is required to estimate this higher number of jobs for transport planning purposes.

Based on evidence collected, HJA estimates a likely on-site employment level of 150-157 actual jobs. This accounts for a low level of WTD opt outs. However, many of these jobs are based on long hours working (approximately 57 hours per week). WERU on behalf of the objectors sets out its own analysis using third party data, contrasting with earlier analysis prepared by Miller Argent. WERU concludes a figure of around 160 jobs. This is very closely aligned to the HJA estimate. There is, therefore, relatively little dispute over the broad scale of direct job creation as a result of the proposed development.

When considering indirect and induced employment effects as well as direct job creation total employment creation is estimated at 293-300 jobs of which around 70% are located within the 10 mile impact zone. 55-60% are estimated to be filled by residents of the 10 mile impact zone. Gross annual wages supported by NLSM are estimated at around £11 million per annum. Some £9 million per annum is paid to workers who work within the 10 mile impact zone. A little over £7 million is paid to residents of the 10 mile impact zone.

Effects on Inward Investment and Existing Businesses

The submissions made by objectors make plain the fears and perceptions that NLSM will lead to wider negative economic effects, particularly for businesses located at the Heads of the Valleys Industrial Estate, but also more widely in the Rhymney area. Matters of visual impact, reduced air quality (dust) and noise impact in particular are cited as substantial concerns. There is concern that these will lead to disinvestment from existing businesses and negatively effect future investment decisions from potential occupiers in the area.

It is very difficult to make an accurate assessment of the potential for future investment in the Rhymney area. It is therefore even more challenging to attribute any potential change in the situation as a result of NLSM.

The manufacturing sector in the UK and locally has been in decline in employment terms for many years. This trend is forecast to continue, although at a slower rate than in recent years. Whilst the Heads of the Valleys Industrial Estate is diversifying with a mix of tenants there are continuing pressures on manufacturing operations across the UK which means it is likely manufacturing employment will decline in the area over the next 10-15 years in any event. There is not, therefore, a static baseline situation.

It is reported that the Heads of the Valleys Industrial Estate has been challenging to let in recent years, with many units lying vacant for some time. It was also indicated that the estate is in a weaker competitive position than other nearby estates offering better quality accommodation and connectivity. This does not suggest a context of strong investment demand that might be blighted without substantial investment.

If it is concluded that there will be significant negative dust, noise and/or visual impacts this will not improve the competitive position of the Heads of the Valleys Industrial Estate or other industrial locations in and around Rhymney. However, it is uncertain as to whether this would create a negative economic impact as a result given the challenging baseline context.

Based on currently available information, the most serious risk of disinvestment from an existing business in the Rhymney area is that of Richards & Appleby (R&A). R&A is a cosmetics manufacturer employing 140 full time staff at present. A detailed conversation with the owner suggests any disinvestment decision is dependent upon a range of commercial factors and not solely the proposed NLSM, although the proposed development has brought such decision making into sharp focus.

Miller Argent reported that it has agreed mitigation measures with other occupiers on the Heads of the Valleys industrial estate and is willing to make such arrangements with R&A. As such, any potential effects attributable to NLSM might reasonably be expected to be mitigated. Whether R&A choose to relocate for other commercial reasons is uncertain. Whilst the mine might have played some role in such a decision the evidence considered by HJA does not support the proposed NLSM being either the sole or even predominant reason for such a decision.

The evidence in respect of FLRS and another surface mine at Shotton that has been reviewed by HJA suggests that in two other cases where there were significant fears relating to the implications for nearby businesses these have not become a reality. In fact, investment has continued in both locations following surface mining operations. No evidence has been presented to demonstrate an example to contradict both the FLRS and Shotton examples. It is beyond the scope and budget of the HJA commission at this stage to research other UK surface mine schemes to identify whether such contradictory examples exist.

Overall there is no clear evidence to suggest a substantial negative economic impact as a result of the proposed NLSM. However, that is not to say that businesses will not be affected.

Impact on Specific Workforce Groups

HJA was asked to consider the potential impact of NLSM upon three identified workforce groups.

- The short term and long term unemployed
- Young people
- The current workforce at FLRS and other skilled workers elsewhere in the sector

It was reported by Miller Argent that:

- The labour market context is different to when it recruited for FLRS, with insufficient skilled operatives to meet the scale of recruitment necessary for NLSM;
- There are no academic barriers to entry so employment opportunities will be available to all with a desire to be trained and with a strong work ethic; and
- Engagement is already underway with Job Centre Plus to put in place a recruitment, training and development plan to build up a pool of additional skilled operatives.

It is also likely that the timing of NLSM will have an impact on the attractiveness of employment opportunities to workers elsewhere in the surface mining sector in south Wales. If there are long delays in the planning process the pool of skilled operatives looking for work may increase. The HJA analysis is undertaken based on a swift resolution to the planning process.

Short-term and Long-term Unemployed

There is clearly an under-utilised labour supply in the area. This data indicates there is currently an unemployed workforce within the 10 mile impact zone looking for work in the same occupational group as the majority of jobs at the proposed NLSM. There is no guarantee that these claimants will secure employment at NLSM should it be approved. Given the duration of unemployment for some workers it is uncertain as to their level of work readiness. However, Miller Argent is working alongside Job Centre Plus to put in place a recruitment programme which will include work readiness activities. Miller Argent has guaranteed interviews for those that complete this programme. Miller Argent will also offer full on the job training for those that do not have accreditation. Miller Argent has indicated that it is aware of some local residents already pursuing driver training in anticipation of employment opportunities at NLSM.

Young People

Similar to the unemployed, there is no barrier to young people accessing employment opportunities at NLSM. Given the limited capacity amongst the existing skilled workforce there are likely to be a number of opportunities for young people to secure long term and stable employment with accredited training to become a skilled operative of heavy plant.

Current Workforce at FLRS and elsewhere in the sector

The vast majority of existing surface mining operations in south Wales are due to continue in their coaling phases until 2020 and beyond. A substantial proportion of the employed workforces will also be retained for around two additional years as part of restoration phases. Therefore, there are long-term, secure employment opportunities for workers already in the sector at their current employment locations. The ageing workforce is a further complicating factor, likely to lead to a reducing pool of skilled operatives in south Wales as increasing numbers of existing workers in the sector move into retirement. Miller Argent do not anticipate there to be a sufficiently skilled labour force to meet the needs of NLSM and therefore has already put in place arrangements to train a new workforce.

1 Introduction

1.1 Our Commission

Hardisty Jones Associates (HJA) has been appointed by Caerphilly County Borough Council (Caerphilly CBC) to provide independent research and assessment of the economic impacts of the proposed open cast development at Nant Llesg, Rhymney.

The purpose of this commission is to inform officer responses to the planning application (ref 13/0732/MIN), particularly those of the economic development team at Caerphilly CBC which has been asked to provide comments to the planning team.

The project specification sets out nine tasks to be completed. We have indicated below (in parenthesis) where each is dealt with in the main report:

- An assessment of the local economy in and around Rhymney (Chapter 2)
- An assessment of the adjoining Ffos y Fran Land Reclamation Scheme (FLRS) in terms of jobs created and impact on the local economy (Chapter 3)
- An assessment of the direct job creation as a result of the proposed development (Chapter 4)
- An assessment of supply chain impacts as a result of the proposed development (Chapter 4)
- Assessment of multiplier effects (Chapter 4)
- An assessment of the impact of the proposed development on the local economy and inward investment (Chapter 5)
- Assessment of local benefits and impacts on the following (Chapter 6):
 - Short term and long term unemployed
 - Young people
 - The current workforce at FLRS and other skilled workers elsewhere in the sector.
- Assessment of economic impact documentation submitted by the applicant (commentary throughout)
- An independent economic assessment of the objections and documentation submitted by the Green Valleys Alliance (GVA) (commentary throughout)

1.2 The Proposed Development

The proposed development is referred to as the Nant Llesg Surface Mine (NLMS). The site lies to the immediate west of Rhymney within Caerphilly County Borough and extends to some 478.1 hectares, of which 222.8 hectares will be operational. The proposed development will excavate some 6 million tonnes of coal from a 96 hectare excavation area. The total period of operations will extend to 14 years, of which 10 years will be active coaling. The proposals include land remediation. A further five year period of aftercare will follow the operational period.

For further details on the proposed development please refer to comprehensive descriptions within the planning application documentation. This can be accessed at <http://www.caerphilly.gov.uk/site.aspx?s=oMR4sZmcAxuMDgSoLTWXTpyhyMCPoWtmcV8ceBMepnPIXj61RnLtw==>

As part of the submitted planning application documentation Miller Argent and its advisors have prepared a social impact assessment setting out the economic impact of the proposed development. This is also summarised within the Planning Statement. The technical economic impact assessment was completed by Peter Brett Associates (PBA), [formerly Roger Tym & Partners].

1.3 Opposition to the Proposed Development

In response to the proposed development a number of campaign groups have been established in opposition. The most comprehensive economic arguments have been put forward by Green Valleys Alliance (GVA). GVA is led by Mr Mitchell Field who is also a Director of Richards & Appleby (R&A), a cosmetics manufacturing company based at the Heads of the Valleys Industrial Estate which lies in close proximity to the proposed development. The GVA is described as *“an alliance of local businesses and residents on and around the Heads of the Valley Industrial Estate. Company members are:*

Convatec Ltd, Richards & Appleby Ltd, Advanced Moulds Ltd, Rubicon Play Ltd, Pro Athletic Supplementation Ltd, Mitie Plc*, Williams Medical Plc* and Ashtenne Plc*¹*

In addition to involvement with the GVA, R&A has submitted its own representations objecting to the proposed mine. The objections made by the GVA and R&A cover a range of matters and are not limited to economic impact. However, as part of this assessment it is only those economic matters which are considered.

Both the GVA and R&A submissions draw on technical economic evidence prepared on their behalf by the Welsh Economy Research Unit (WERU) based at Cardiff University Business School. This is the most substantial piece of economic evidence in support of objections to the scheme. As a result Caerphilly CBC wishes for this evidence to be reviewed as part of this assessment.

1.4 Project Scope and HJA Neutrality

The proposed development is clearly a contentious scheme with strong voices both in favour and in opposition to the granting of planning permission. There are a broad range of technical and policy issues to be considered by Caerphilly CBC in determining the application.

HJA has been appointed to provide independent technical assistance solely in the area of economic impact. HJA has maintained a neutral position throughout its research.

The project specification covers the economic effects of mining operations with a particular focus on the local economy. The project specification does not request consideration of more strategic economic matters relating to the demand for coal and the forward linkages between the proposed development and the ongoing economic viability of Aberthaw Power Station (APS).

The research undertaken by HJA has touched on the issue of demand for coal, but not in great detail. In discussions with Miller Argent, Richards & Appleby and the Welsh Economy Research Unit the

¹ Those with an asterisk were noted as not having confirmed support for the objection documentation at the time of submission (December 2013) but would be confirmed in due course. HJA was notified by the Planning team at CCBC that no further confirmation had been received at the time of project inception (late April 2014).

issue of demand for coal and the wider strategic economic case for the mine were raised. Issues raised included: matters relating to energy policy, including the future mix of power generation globally and within the UK; energy security and the implications of changing carbon emission restrictions; and the future of APS with and without the proposed development, including limitations on scale of import supply to APS and therefore the need for a stable local supply. The scope and budget for this research has not allowed detailed consideration of such matters.

HJA has no specific expertise in the field of noise, air quality and visual impact assessment. Where it has been necessary to consider wider environmental issues, insofar as they are material to economic arguments, HJA has consulted with appropriate experts.

This report sets out the findings of research undertaken by HJA. This report does not include recommendations or views on whether the proposed development should be supported or opposed. Rather, it provides information to inform the views of Caerphilly CBC officers and members.

As with all forward looking assessments there is an element of risk. This research draws on the best evidence made available to HJA. The HJA team has applied its expertise and experience in the field of economic impact assessment to make robust assessments of the evidence and in drawing conclusions. However, this is no guarantee of future reality. In completing this research it is clear that many important commercial decisions which will affect the future of companies at the centre of this research have not yet been taken. Indeed, when they are taken they will be subject to the normal commercial pressures and the state of the economy at that time. As such, a range of factors will influence these decisions, not just NLSM.

1.5 HJA Approach

The approach adopted by HJA was conceived in order to ensure independence and neutrality whilst responding to the tasks set out within the brief. The assessment methodology is based on HM Treasury Green Book principles and seeks to take full account of additionality factors².

Following project inception, and familiarisation with the proposed development (including a site visit), HJA constructed its own draft impact framework before reading in detail any of the economic submissions made on behalf of Miller Argent or the GVA. This was designed to help avoid the HJA assessment being limited only to matters raised within the submitted documentation.

HJA then reviewed in detail the relevant documentation from Miller Argent and GVA to test whether the draft framework was comprehensive. The draft framework was supplemented where appropriate. This review also allowed comparison of the issues raised by both sides of the argument and to identify areas of general agreement and the most substantive areas of disagreement or difference. As part of this review HJA noted areas for further testing with both parties.

HJA then consulted with:

- Miller Argent

² Leakage, Deadweight, Displacement and Multipliers – see HM Treasury – The Green Book: Appraisal and Evaluation in Central Government.

- Peter Brett Associates
- Richards & Appleby/Green Valleys Alliance
- Welsh Economy Research Unit
- Merthyr Tydfil County Borough Council Economic Development Team
- Caerphilly County Borough Council Environmental Health Team
- Hansteen and commercial property agents

This allowed further testing and clarification of matters arising from the submitted documentation as well as testing of issues from HJA's own research.

HJA then analysed all the available evidence including submitted documents and consultation responses in order to complete its own analysis. The results of this analysis are set out in this report.

1.6 Policy Context

HJA has been commissioned to provide technical support to Caerphilly CBC. The contract specification does not include assessment against wider policy objectives. Notwithstanding, these are matters which Caerphilly CBC will need to consider.

However, of relevance is the recently published Technical Advice Note 23: Economic Development (TAN 23). This provides high level guidance on how to consider economic development within the planning system in Wales. In particular this highlights the need to give due weight to the economic benefits associated with new development in the decision making process.

TAN 23 sets out three questions to consider as part of assessing a planning application. These are:

Alternatives: *if the land is not made available (the site is not allocated, or the application is refused), is it likely that the demand could be met on a site where development would cause less harm, and if so where?* To gauge the benefit of the proposal, it will be necessary to compare it with the 'base case' in which the proposal does not go ahead. The answer relates partly to the locational flexibility of the economic sectors concerned. If the subject site is unexceptional, there are many others like it, and these sites have spare capacity, it may be easy to find substitutes. Conversely, there may be few substitutes or none if the subject site has unusual advantages.

It is assumed in this instance that by the very nature of the need to use the site for its coal reserve makes the consideration of alternatives somewhat redundant in this instance. The NLSM site is identified as a Primary Coal Resource Area.

Jobs Accommodated: *how many direct jobs will be based at the site?* A local authority may wish to conduct a more detailed assessment of potential job creation taking in to account indirect job creation. There may be good reasons why jobs in some places are even more worthwhile than in other places. The third test deals with this.

Special Merit: *would the development make any special contribution to policy objectives?*

Direct and wider job creation is assessed as part of this report. Special merit is also considered through the assessment of impact on specific workforce groups.

1.7 Geographic Area of Focus

It was agreed at project inception that HJA would align its analysis with the submissions made by Miller Argent and the GVA.

Upon reviewing the documentation it is evident that different geographic areas of focus are used. These are summarised below:

- Miller Argent/PBA provides local analysis focusing on a tightly defined area around Rhymney for the purpose of assessing the baseline situation. This is constructed using seven Lower Super Output Areas (LSOAs). Some further data is provided for the county boroughs of Caerphilly and Merthyr Tydfil.
- However, Miller Argent/PBA uses a geographic area based on a radius of 10 miles from the proposed site for the purposes of assessing impact.
- GVA/WERU use a sub-regional area covering the local authorities of Blaenau Gwent, Merthyr Tydfil and Caerphilly for the purpose of assessing the baseline situation. This is supplemented with further analysis based on eight Lower Super Output Areas (LSOAs) around Rhymney.
- However, GVA/WERU present impact analysis including indirect and induced effects at the Wales level.

At the local level the site is located to the west of the settlement of Rhymney and in close proximity to Pontlottyn and Fochriw. The local definitions used by both Miller Argent/PBA and GVA/WERU are appropriate and cover these communities. The WERU definition includes an additional LSOA (Darren Valley 1 – W01001360). This area stretches to the south of Fochriw and includes the settlement of Deri. The majority of this area is outside the immediate vicinity of the proposed development. However, the inclusion of this additional LSOA is unlikely to alter the results of baseline analysis substantially.

When considering effects over a larger area the Miller Argent/PBA approach of using a 10 mile radius is helpful given the location of the proposed development to the north of the Caerphilly County Borough. The A465 Heads of the Valleys road runs in an east-west direction to the immediate north of the site. The A470 provides a strategic north-south road route intersecting with the A465 to the west of Merthyr Tydfil. In functional terms the site relates to the wider Heads of the Valleys area rather than solely to the Caerphilly County Borough. The 10 mile impact zone used by Miller Argent/PBA encompasses parts of Blaenau Gwent County Borough, Caerphilly County Borough, Merthyr Tydfil County Borough, Monmouthshire, Rhondda Cynon Taff County Borough, Torfaen County Borough and Powys County/Brecon Beacons National Park.

Of note, this area does not cover any of Neath Port Talbot County Borough or those locations further to the west which incorporate various other surface mining locations. It also excludes the M4 corridor and more rural areas to the east (i.e. Monmouthshire).

HJA agrees that this 10 mile impact zone is a useful tool to capture local effects which will be felt far more widely than the Caerphilly County Borough alone. This also aligns to the guidance within TAN 23. Given data availability HJA has drawn heavily on the information made available by Miller Argent for the 10 mile impact zone.

Following the review of the geographic areas used it would appear that the impact analysis undertaken by both Miller Argent/PBA and GVA/WERU do not neatly correlate with the geographies used for baseline analysis.

No baseline assessment was provided by Miller Argent/PBA for the 10 mile impact zone. In the following chapter we set out relevant and available baseline data for this area. This allows for more direct comparison between impact and baseline.

2 Rhymney Area Economy

This chapter of the report considers the baseline economic situation in both the Rhymney area, which might be considered the immediate impact area of the NLSM, but also the 10 mile impact zone around NLSM used in the Miller Argent/PBA analysis. The 10 mile impact zone is a helpful tool given the location of NLSM at the intersection of various administrative boundaries, but no evidence has been presented to set out the baseline economic characteristics of this area.

Appendix 1 sets out the area definitions used. Due to changes in the boundaries of Super Output Areas the 2001 and 2011 Census results are not on a consistent geographical basis and therefore not directly comparable. The closest match has been used and where comparison is presented in relative rather than absolute terms.

In terms of the Rhymney area, HJA has used the same definition as Miller Argent/PBA. WERU included one additional SOA in its own analysis for R&A. The evidence of both studies is largely consistent.

2.1 Population & Demographics

The 2011 Census records a population of around 10,000 in the immediate Rhymney impact area and 311,000 in the 10 mile impact zone.

It is not possible to directly compare the change from the 2001 Census to 2011 Census for the impact areas due to definitional changes. However, evidence presented by both Miller Argent and WERU suggests weak population growth or even decline in the area. In part this reflects the lack of economic opportunity which has been present in the area.

2.2 Labour Market

Labour market data from the 2011 Census of Population indicates that the health of the 10 mile impact zone labour market is better than for the immediate impact zone in Rhymney, but still significantly worse than Welsh averages which in turn are below the England and Wales combined averages.

Table 2.1 Headline Labour Market Indicators, 2011 Census of Population

	Immediate Impact Zone	10 Mile Impact Zone	Wales	England & Wales
Economic Activity	57.3%	62.5%	65.8%	69.7%
Unemployment	6.8%	5.7%	4.3%	4.4%
Long-term Unemployment	3.2%	2.5%	1.7%	1.7%

The immediate impact zone records lower levels of economic activity and higher levels of unemployment and long term unemployment than all the benchmarks. The 10 mile impact zone also exhibits a similar pattern when compared to Wales, but the scale of the problem is not as marked as in the Rhymney area.

There are contrasting opinions of the relative challenges between male and female labour market participation in the submitted application and objection documentation. Table 2.2 sets out some key statistics for male and females.

A number of issues stand out:

- For both males and females the situation in the immediate impact area and 10 mile impact zones are worse than for Wales and England & Wales in keeping with the overall picture.
- Levels of economic activity, unemployment and long term unemployment are generally higher for males than females in all the areas considered and are not specific to the impact areas.
- When comparing the scale of difference between the impact zones and Wales there is no consistent pattern. For some indicators the situation is worse for males in terms of percentage point variance, for others the situation is worse for females.

This would suggest that the economic challenges faced in the area are common to men and women alike and the desire to see improvement in these indicators for all groups is valid. There is no overwhelming evidence to argue a case that an impact upon either male or female groups is better or worse than the other when considered in the context of wider benchmark areas.

Table 2.2 – Comparison of Male and Female Labour Market Indicators, 2001 Census of Population

	Immediate Impact Zone	10 Mile Impact Zone	Wales	England & Wales
Economic Activity				
<i>Male</i>	61.7%	67.4%	70.3%	74.9%
<i>Female</i>	52.9%	57.7%	61.3%	64.5%
Unemployment				
<i>Male</i>	8.0%	7.3%	5.5%	5.3%
<i>Female</i>	5.5%	4.2%	3.2%	3.5%
Long-term Unemployment				
<i>Male</i>	3.5%	3.0%	2.1%	2.0%
<i>Female</i>	2.8%	2.0%	1.4%	1.5%

2.3 Employment

2012 data on employment (Business Register and Employment Survey) indicates around 2,000 jobs in the immediate area and 85,500 in the 10 mile impact zone.

The local area is particularly reliant on manufacturing with 25% of employment, compared to 18% in the 10 mile zone and 11% in Wales. This reflects the relatively small local private service sector, particularly in terms of business and financial services.

Over the period 2009-2012 employment in the immediate impact area has declined by 12%, compared to a 2% decline in the 10 mile impact area and no change at the Wales level. However, manufacturing employment has experienced 12% growth compared with marginal (2-3%) employment declines in the 10 mile impact area and Wales areas.

2.4 Deprivation

Both Miller Argent and WERU identify the high incidence of deprivation in the immediate vicinity of the site as recorded in the Welsh Index of Multiple Deprivation (WIMD) 2011. There are also substantially more LSOAs in the 10 mile impact zone within the 10% and 25% most deprived in Wales than would be expected if deprivation was evenly spread across Wales. Based on rankings of the 44 LSOAs in the 10 mile impact zone, 22% are in the 10% most deprived in Wales, 52% are in the 25% most deprived. This highlights the high incidence of deprivation across the Heads of the Valleys area. The table below sets out the headline results for the 'overall' deprivation measure.

Table 2.3 – Welsh Index of Deprivation 2011

	Immediate Impact Zone	10 Mile Impact Zone	Wales
10% most deprived	43%	22%	10%
25% most deprived	86%	52%	25%
Number of LSOAs	7	197	1,896

The WIMD comprises seven 'domains'. The domains with the greatest levels of deprivation in the 10 mile impact zone are employment, health and education all of which record a greater share of LSOAs in the 10% and 25% most deprived than the overall measure. Income and community safety domains also record higher percentages than would be expected if deprivation was evenly distributed across Wales. 71% of LSOAs in the immediate vicinity are recorded in the 10% most deprived in Wales in terms of employment, this compares to 31% in the 10 mile impact zone. Both well above the benchmark and highlighting the importance of employment opportunity in these areas.

Housing, environment and access to services both record lower numbers of LSOAs recorded in the 10% and 25% most deprived than would be expected if deprivation was evenly distributed across Wales.

2.5 Summary

Both Miller Argent and WERU identify the economic challenges locally, albeit using slightly different geographical bases and with slight variation in data interpretation. The latest data available from the 2011 Census of population allows some comparison of the immediate impact area with the 10 mile impact zone and Welsh and England & Wales averages. This aligns with the findings of the submitted analyses, highlighting issues which are generally well understood.

There are issues in terms of labour market weakness, deprivation and limited economic opportunity. The data presented in this chapter suggests that the challenges persist for both men and women and there is no strong case for arguing impact on one group rather than the other is more valid.

Of note is the continuing decline in employment in the immediate area and the reliance on manufacturing, which is shown later in this report to be at risk of employment decline in the future.

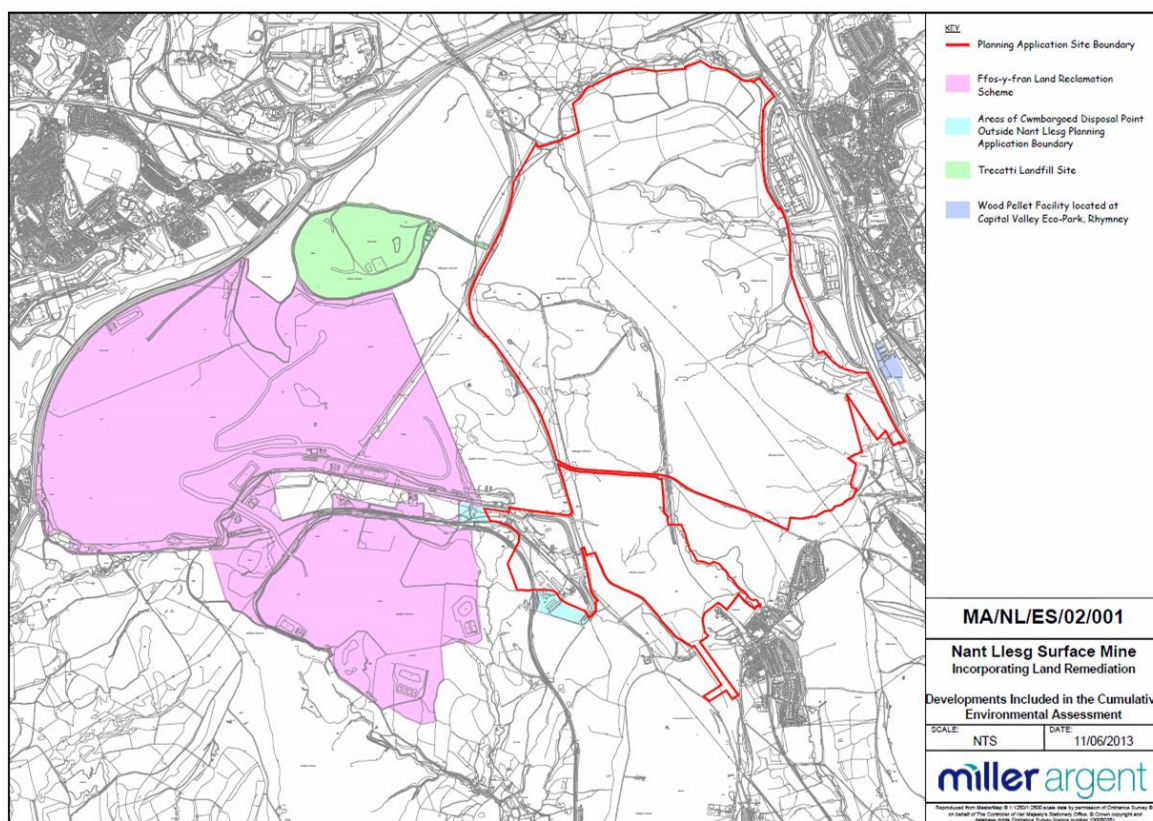
3 Economic Impacts of the Ffos Y Fran Land Reclamation Scheme (FLRS)

3.1 FLRS

The FLRS includes a large surface mining operation lying immediately to the south of the A4060 to the south and east of Merthyr Tydfil town. The total FLRS site extends to some 400 hectares. The coal reserve is estimated at around 11.4 million tonnes. The approved scheme will run for 17.5 years from commencement of operations in 2007. Coaling activity is anticipated to extend to 2021/2022 and the later years will comprise site restoration.

The FLRS site lies to the west of, and in close proximity to, the proposed NLSM. Both FLRS and the proposed NLSM are operated by Miller Argent. Figure 3.1 shows the location of FLRS (marked in pink) and NLSM (marked by the red line).

Figure 3.1 Location Plan of FLRS and NLSM



Given the proximity of the FLRS scheme, Caerphilly CBC is keen to understand the economic impacts which have arisen as a result of this investment.

HJA has accessed relevant data from documentation submitted by Miller Argent and its advisors in support of its planning application at NLSM. This has been supplemented with information gathered through a consultation with Miller Argent. There has also been consultation with Merthyr Tydfil CBC economic development team.

3.1.1 Similarities with NLSM

The FLRS and NLSM sites both lie in the Heads of the Valleys area between the settlements of Merthyr Tydfil and Rhymney. HJA understands that the mining techniques and operations will be of a very similar nature at both sites. However, they will be operated as separate sites. Whilst some management functions will be common to both sites, it is intended that operatives will be allocated to one site or the other. This is important for reasons of health and safety.

3.1.2 Differences to NLSM

The locational relationships between FLRS and Merthyr Tydfil and NLSM and Rhymney are quite different. FLRS lies to the south and east of the Merthyr Tydfil settlement, whereas NLSM lies to the west of Rhymney. The impacts of the prevailing westerly winds are therefore different. There are also some differences in topography between the adjoining industrial areas at the two sites. This creates the potential for issues of noise, air quality and visual impact to be quite different for businesses and residents and Rhymney than those experienced by businesses and residents in Merthyr Tydfil. For example, the overburden mound as part of the FLRS is more distant from the Merthyr Tydfil settlement than proposals at NLSM which will create a different visual impact³.

3.2 Direct Impacts

3.2.1 On-site employment

The documentation submitted as part of the NLSM planning application notes 149 Miller Argent employees and 59 sub-contractors on-site at FLRS, a total of 208. Consultation with Miller Argent indicates that this figure has now increased to 221 staff on-site.

Miller Argent identified that vast majority of operatives have chosen to opt out of the Working Time Directive⁴. As a result, many staff work a 57 hour working week. A small number of staff (indicated as less than 10) had not opted out and worked a maximum of 48 hours per week.

Using the relationship of split shift to single shift staff numbers provided by Miller Argent as part of its NLSM submissions (Table 5.3, chapter 5 of Environmental Statement⁵) an estimate for the number of full time equivalent (FTE) jobs, based on a maximum 48 hour week, is closer to 370 workers.

3.2.2 Local workforce

Miller Argent reports that 80% of on-site staff live within 10 miles of the FLRS site⁶. The main concentrations are very local, in the towns of Merthyr Tydfil and Rhymney (50% live within 5 miles of

³ At the time of drafting Caerphilly CBC was awaiting further information from Miller Argent in respect of visual impact. No assessment of the scale and nature of visual impacts had therefore been completed by the Council. This statement is therefore intended to illustrate the potential differences and not to provide any indication of significance of impact.

⁴ 2003/88/EC is a Directive of the European Union. It gives EU workers the right to work for no more than 48 hours per week among other employment rights.

⁵ Environmental Statement Volume 1: Technical Assessments, Miller Argent

⁶ This aligns with statements made by other surface mine operators within planning application documentation and is consistent with 2001 Census of population commuting data for the 10 mile impact zone.

the site). Miller Argent indicated that all of these operatives lived locally prior to recruitment. There had not been a relocation effect as a result of FLRS.

Miller Argent indicated that there is some turnover of workers (although low), and recruitment is ongoing. 12 new operatives have been recruited within the last six months. All live within five miles of the FLRS site. Miller Argent indicated a strong desire to employ locally resident workers in order to aid staff retention.

The available evidence suggests a very local and loyal workforce, particularly for plant operative positions. Letters of support for the NLSM made to Caerphilly CBC include a number from employees at FLRS that have been in post since the site became operational (i.e. some six years).

Miller Argent indicated that whilst there is some loss of staff to other employment opportunities (most often those staff that do not live locally to the site and are able to find work closer to home), the main reason for staff turnover is retirement. This aligns to reports of ageing workforces⁷ in many sectors. As a result of skilled staff leaving the sector through retirement Miller Argent noted a decreasing average age of its workforce as it recruits and trains new operatives in the sector.

3.3 Indirect Impacts – Supply Chain

Miller Argent submission documentation makes reference to supply chain data at FLRS. Expenditure on supplies is in the region of £30 million per annum. Approximately one quarter is retained within 5 miles of the FLRS site, with at least one very significant supplier located in the town of Rhymney. Some three-quarters of expenditure is retained within Wales.

Letters of support for the NLSM application include those from existing suppliers, in Wales and outside. These provide clear evidence of strong local supplier relationships, often with SMEs. These letters also indicate long term commercial relationships with suppliers. Miller Argent indicated a preference for local suppliers where commercially appropriate.

The analysis submitted by Miller Argent indicates that this level of expenditure supports 144 indirect jobs. 39 of these jobs are estimated to be located within 10 miles of FLRS. However, there is a need to avoid double counting with some on-site contractors from local suppliers already included. The total figure is therefore reduced to 85 and the local figure to 23⁸.

HJA has sought to test the mechanism by which Miller Argent/PBA converted supplier expenditure to jobs. HJA is content with the turnover per worker approach⁹. However, two very broad economic

⁷ For example: <http://feweek.co.uk/2014/02/07/building-a-skilled-construction-workforce-between-the-gaps/> and http://www.ciob.org/sites/default/files/Skills%20Report%202013_0.pdf (last accessed 7/7/14). These focus on the construction sector, including civil engineering, which share many of the same skills requirements as surface mining. It is reported by Miller Argent that 40% of FLRS workforce is over 50 at para 16.23 of Planning Statement.

⁸ Miller Argent/PBA estimates that 27% of on-site contractors at NLSM are in lieu of jobs at suppliers located within the 10 mile local area. This is applied to the stated number of contractors at FLRS (59). As a result a discount of 16 jobs is made from local indirect employment.

⁹ The turnover per worker approach is a means of estimating employment from a known injection of business turnover. Data from the Annual Business Survey (ONS) provides estimates of total turnover and total employment for sectors of the economy. This data can be used to estimate turnover per worker employed.

sectors have been selected (Manufacturing and Wholesale/Retail) as the basis for deriving the assumption of turnover per worker. Given the supplier expenditure data which was made available by Miller Argent to PBA a more detailed assessment might potentially have been made. However, HJA accepts this may have been challenging if insufficient information was provided to allocate suppliers to sectors. In any event, there is some uncertainty regarding the turnover per worker assumption.

HJA has considered data from the Annual Business Survey for a more refined list of sectors, based on the nature of suppliers noted in submission documentation and consultation with Miller Argent. This narrows the range of manufacturing and wholesale/retail sectors considered to focus on those more closely related to mining/industrial operations. It also includes a focus on goods and services related to plant and machine sale, hire, maintenance and repair, which is quoted as a substantial element of supplier spend. HJA research indicates that turnover per worker for one sector – that of wholesale of fuels – can substantially skew the data in an upward direction. Miller Argent has confirmed that fuel suppliers are located outside the 10 mile impact zone, but in Wales. When fuel supply is excluded from the turnover per worker calculation the level falls to a figure below £160,000 per worker, as compared to a working assumption in the Miller Argent/PBA analysis of approximately £225,000 per worker. If this assumption were adjusted there would be a 40% boost to the derived estimate of local workers in the supply chain within the 10 mile impact zone.

3.4 Induced Effects – Employee Spending

Miller Argent undertook a sample survey of employee spending patterns at FLRS. A total of 22 useable responses were gathered. This equates to approximately 10% of the on-site workforce. HJA has reviewed this information. Miller Argent/PBA does not claim that this data is intended to be highly robust and statistically significant, rather that it provides insight into spending patterns. Five of the responses appear to be from workers that live outside the 10 mile local area and hence the majority of the spending also falls outside the area. Of those that live within the 10 mile local area the geographical spread of expenditure appears reasonable, with much expenditure in the local area, and some falling further afield.

HJA is unable to corroborate whether average weekly spending aligns with individual earnings levels and hence the accuracy of survey responses. However, in broad terms, the average expenditure figures reported fall below average wages and therefore can be considered plausible. HJA has also considered spending patterns against those reported in the ONS Family Spending release 2013 and assesses the results as fair. There are some discrepancies (e.g. higher spending on food and drink and health and lower spending on recreation and culture). However, these are relatively minor and the overall effect does not change.

Miller Argent analysis within the Planning Statement indicates £15,700 per worker per annum spent locally. That equates to around £300 per week per employee. Miller Argent then states that this makes a contribution of £1.7million per annum to businesses within 10 miles of the site which could support a further 60 jobs.

This estimate is applied to the expenditure on suppliers in the relevant sectors to provide an estimate of the employment supported as a result of the new investment.

HJA has undertaken its own analysis of the expenditure survey data and comes to slightly different conclusions. This may be due to the way in which the data is interpreted. The HJA analysis indicates total expenditure per worker of approximately £19,000 per annum and local expenditure of £13,800 per annum per worker. Based on current employment levels of 221 on-site staff this would support £3.05 million expenditure per annum within a 10 mile radius of FLRS. Based on turnover per worker data for either the whole economy (all sectors) or for retail sectors alone this would support 20-27 employment opportunities¹⁰. The HJA figures are somewhat lower than those claimed by Miller Argent. Following review of the approach adopted by PBA within the Environmental Statement, the method used to assess NLSM appears to be more closely aligned to the HJA approach. On this basis it would appear that the 60 local jobs reported by Miller Argent is in error.

3.5 Wider Effects

This section provides comment on the wider inward investment and local business effects of FLRS outside the supply chain relationships which are captured in the preceding analysis. This is based on consultation with Merthyr Tydfil CBC.

3.5.1 Inward Investment and Local Businesses

It was noted that prior to commencement of operations at FLRS there were clearly expressed fears and negative perceptions of the potential impact of a surface mine in close proximity to the town. Merthyr Tydfil CBC indicated that these fears and perceptions have not been borne out in reality. Merthyr Tydfil CBC is not aware of evidence that the presence of the mine has negatively impacted economic development or local businesses. This includes businesses in very close proximity to FLRS (within 500m and hence closer than those adjacent to NLSM) including sensitive manufacturing operations such as OP Chocolates.

Merthyr Tydfil CBC reported strong growth in business activity at the Goat Mill Road Industrial Area¹¹ and other employment sites at Dowlais¹². Numerous new business starts in the area were cited and Merthyr Tydfil CBC was of the view that the initial perception that the Goat Mill Road location would be a bad place to do business is not the case in reality. Merthyr Tydfil CBC was not aware of complaints relating to dust and noise and FLRS has not been cited as a concern when Merthyr Tydfil CBC Economic Development officers have met with businesses in the local area.

FLRS was not suggested to be a driver for this investment in addition to effects captured in the supply chain analysis. Rather it was noted that there is no tangible evidence that FLRS operations are having a negative impact on the wider business environment. It has not been possible within the scope and budget of this research to test whether there has been any investment decisions deterred

¹⁰ Not all of this should be considered additional as without direct employment one would anticipate some expenditure to be replaced through benefits income. As benefits are assessed on individual circumstances it is very difficult to assess the proportion of expenditure that might otherwise be made without employment. Job Seekers Allowance alone would only be paid at the full rate for six months. This would provide an income of less than £2,000 per claimant. Other benefits may also be payable. No discount to the gross figures has been applied.

¹¹ MTCBC indicated 15-20 new business starts in the Goat Mill Road area in recent years.

¹² E.g. <http://www.walesonline.co.uk/news/local-news/jobs-boost-factory-prepares-expand-7119347>

or delayed as a result of FLRS, but no evidence or awareness of such decisions was indicated by Merthyr Tydfil CBC.

Merthyr Tydfil has benefitted from substantial investment via the Heads of the Valleys Programme, the establishment of the Welsh Government office in the town and substantial investment in retail and leisure sites. It has also benefitted from its strategic location at the intersection of the A470/A465.

3.5.2 Tourism

Merthyr Tydfil CBC indicated that tourism continued to grow in the area. Merthyr Tydfil has continued to receive investment in its tourism infrastructure, including Bike Park Wales. Cyfartha Castle is one of the top ranked visitor attractions in Wales. Tourism visits to Merthyr Tydfil have reportedly increased 30-40% over the last two years.

FLRS was not suggested to be a driver for tourism investment and growth, but rather that it was not tangibly impacting tourism activity in a negative way. Within the scope and budget of this research it has not been possible to test in any more detail whether there has been any limitation on the scale of tourism growth as a result of FLRS.

3.5.3 Community Fund

Miller Argent has set up a community fund as part of FLRS. HJA is aware that this should not be considered as part of the decision making process for granting planning permission. However, it was reported by Merthyr Tydfil CBC that this has been a great advantage to community development in Merthyr Tydfil and has also been a useful tool to match other funding streams and secure additional investment into the area. It was noted that this provides a visible positive impact in the local area.

3.6 Summary

Table 3.1 below sets out the summary of the results most directly related to FLRS activity. Table 3.2 illustrates the impact in terms of gross wages paid.

Total employment creation is estimated at 333-343 jobs of which more than 80% are located within the 10 mile impact zone. 66% are filled by residents of the impact zone.

Table 3.1: Summary of FLRS Employment Impacts

	Total	Within 10 miles of FLRS <i>Workplace based</i>	Within 10 miles of FLRS <i>Residence Based</i>
On-site employment	221 <i>Potentially 370 FTEs</i>	221 <i>Potentially 370 FTEs</i>	177 <i>Potentially 297 FTEs</i>
Indirect off-site employment	85	23 <i>HJA: 32</i>	19 <i>HJA: 27</i>
Induced employment	Uncertain <i>HJA: 27-37</i>	60 (suspected error) <i>HJA: 20-27</i>	- <i>HJA: 17-23</i>
Total <i>Using HJA calculations of indirect and induced employment</i>	333 - 343	273 - 280	221 - 227

Gross annual wages supported by FLRS are estimated at around £11 million per annum. Some £9 million per annum is paid to workers who work within the 10 mile impact zone. A little over £7 million is paid to residents of the 10 mile impact zone.

Table 3.2: Summary of FLRS Wage Impacts (per annum)

Uses HJA estimates for indirect and induced impacts

	Total	Within 10 miles of FLRS <i>Workplace based</i>	Within 10 miles of FLRS <i>Residence Based</i>
On-site employment ¹³	£7.7 million	£7.7 million	£6.1 million
Indirect off-site employment ¹⁴	£2.3 million	£0.8 million	£0.7 million
Induced employment ¹⁵	£0.74 - £1.0 million	£ 0.5- £0.7 million	£0.4 -£0.6 million
Total	£10.7 -£11.0 million	£9.0 - £9.1 million	£7.3 - £7.4 million

Discussions with Merthyr Tydfil CBC indicate that there have been no reported negative impacts on the wider business and economic environment. Business activity in close proximity to the site has continued and delivered growth. The wider Merthyr Tydfil economy has benefited from wider investment activity but there is no suggestion FLRS has limited the impact of this, despite fears this would be the case before FLRS commenced operations.

¹³ Based on average wage data derived from NLSM Planning Statement. Average annual pay per employee £34,666.

¹⁴ For total indirect off-site employment based on Wales mean full time wages £27,567 per annum, Annual Survey of Hours and Earnings, ONS, 2013. For impact zone based on simple mean average for Blaenau Gwent, Merthyr Tydfil and Caerphilly of £25,577 per annum for full time wages (whole economy).

¹⁵ For total induced employment based on Wales mean full time wages £27,567 per annum, Annual Survey of Hours and Earnings, ONS, 2013. For impact zone based on simple mean average for Blaenau Gwent, Merthyr Tydfil and Caerphilly of £25,577 per annum for full time wages (whole economy).

4 Proposed Development at Nant Llesg Surface Mine

This chapter sets out an assessment of the likely economic impacts of the proposed NLSM.

4.1 Current Use

The site of the proposed NLSM is currently used for open grazing and informal recreational use. In purely economic terms it provides a very limited contribution to the local economy. The site has been subject to historic mining activity, including some open cast mining.

HJA is aware that a substantial amount of lost common land and open grazing land will be offset through re-provision in other locations.

4.2 Do Nothing Scenario

Without the NLSM investment there are no significant alternatives to the proposed use, and the site would continue in its current use for open grazing and informal recreation. Caerphilly CBC has confirmed that there is no intention to develop any part of the land for an alternative economic use in either the short or long term.

4.3 Future Use and Remediation

The remediation activities which form part of NLSM will not facilitate any intensification of use on the site post completion. Therefore, this is not considered as part of the following analysis. It is the intention that the site will be returned to common land for open grazing and informal recreation use.

There is potential for a net gain in site safety as a result of remediation activities removing adits and shafts from the area. No economic benefit has been attributed to this enhancement as part of this assessment.

No economic benefit has been attributed to improvements to other recreational areas as a result of remediation efforts e.g. there is a potential improvement in water quality at Parc Cwm Darran.

4.4 Forward Linkages

Neither the Miller Argent/PBA or GVA/R&A/WERU submissions consider forward linkage effects. That is, the economic effects arising within customers of Miller Argent. HJA notes the letters of support offered by RWE on behalf of Aberthaw Power Station (APS) and TATA in respect of Port Talbot Steelworks. Miller Argent stressed to HJA during consultation the positive benefits to APS in particular of the coal supply which will be made available from NLSM.

It is beyond the scope and budget of this commission to investigate these forward linkage effects in detail. This could form part of any consideration of the wider strategic economic implications of NLSM.

4.5 Impact Framework

The initial phase of work undertaken by HJA was to develop an impact framework which forms the basis for the assessment of economic effects. In developing this framework HJA was able to identify gaps in the evidence base or areas for clarification with stakeholders. It also allows for the submissions of Miller Argent/PBA and GVA/R&A/WERU to be tested.

In summary HJA sought to consider the following two broad issues:

- Economic effects arising through the operation of NLSM
 - On-site employment
 - Indirect effects through the supply chain
 - Induced effects through expenditure of employees in the wider area
- Wider effects resulting from the operation of NLSM
 - Existing operations of businesses in the area
 - Investment decisions of existing businesses in the area
 - Investment decisions of potential new entrants to the area

The first topic is the subject of this chapter. The second topic is the subject of the following chapter.

In considering the economic effects arising through the operations of NLSM, HJA has sought to identify both workplace and residence based effects. Upon review of the Miller Argent documentation there is some hybrid of the two in places. HJA has also sought to ensure additionality factors are fully considered, using information specific to the proposed NLSM wherever possible.

Where submissions by both parties are broadly in agreement HJA has used a relatively light touch assessment. However, in all cases there has been an attempt to corroborate information where possible.

Upon reviewing documentation it was clear that there were relatively few areas of substantial dispute. These formed the focus of research efforts.

4.5.1 Direct Effects

The direct effects set out within the Miller Argent/PBA analysis are centred on jobs created and wages paid.

4.5.1.1 Job Creation

The number of jobs created is based on operational planning undertaken by Miller Argent. The FLRS has been used as a basis for this operational planning. Synergies in the management operations for FLRS and NLSM have been accounted for in the job numbers stated. The majority of employment is within the operative workforce which is based on a ratio of one operative per piece of plant. There are, therefore, limited synergies to be achieved between the FLRS and NLSM operations for Miller Argent.

The Miller Argent/PBA analysis quotes a range of 144-239 on-site jobs. This is an average over a 14 year period from commencement of site operations to completion of site restoration. Table 5.3 of

the Environmental Statement sets out a detailed time line of employment numbers. This shows a build-up of employment through the first year of operations, a fairly steady employment level of 158-266 jobs through the 11 year coaling period and then a slight reduction to 108-171 jobs through the restoration period.

The figures quoted include all on-site jobs. Miller Argent estimates that 26 workers would be contracted to suppliers, with the remainder 118 – 213 being directly employed by Miller Argent.

The range in job numbers quoted relates to the Working Time Directive (WTD). The WTD sets a limit of a 48 hour working week for employees within the EU. However, it is possible for employees to opt out of this and work for longer hours. Should all workers wish to work a maximum of 48 hours per week, or should legislation change to remove the opt-out the higher number of jobs would be created. Miller Argent would then operate a split shift operation at NLSM. Miller Argent is required to estimate this higher number of jobs for transport planning purposes.

The lower end of the range is based upon all workers opting out of the WTD. Current experience at FLRS indicates that the majority of operatives do opt out of the WTD and work longer hours. However, there are a number of workers which choose to limit working hours in line with the WTD. It is uncertain as to how many workers may wish to do so at NLSM. It is estimated that around 5% of operatives currently opt out of the WTD at FLRS. It was suggested that those opting out tend to be older workers. A working assumption of 5%-10% would be reasonable for assessing NLSM. What is clear from the evidence is that whilst there is a range stated, under current circumstances it appears reasonable to assume a figure towards the lower end of the range for total job numbers, but not at the lowest point in the range. HJA estimates a figure of around 150-157 actual jobs, applying the 5%-10% adjustment range to operative jobs.

WERU sets out its own analysis using third party data, contrasting with earlier analysis prepared by Miller Argent. WERU concludes a figure of around 160 jobs. This is very closely aligned to the HJA estimate above. There is, therefore, relatively little dispute over the broad scale of direct job creation as a result of the proposed development. Table 4.1 below provides a simple summary.

Table 4.1 Comparing Employment Impact Estimates

Source	Employment Estimate (Jobs)
Miller Argent	144-239
WERU	160
HJA	150-157

Notwithstanding, this lower number of jobs is based on long working hours, with the vast majority of on-site employees working 57 hour weeks allowing the NLSM to operate a single shift system. For comparative purposes it might be more appropriate to consider full time equivalent (FTE) employment. Typically one might use a figure close to 35 hours per week to measure FTEs. For the

purposes of this analysis we retain the 48 hour WTD limit¹⁶, which leads to the higher end of the stated range at an average of 239 on site jobs over the 14 year operational period.

All jobs will be based on-site and therefore within the 10 mile impact zone. Miller Argent/PBA provides analysis of leakage effects to indicate the number of jobs which are expected to go to residents of the 10 mile impact zone. Observed data from the FLRS workforce is used – indicating some 80% of employees are resident within the 10 mile impact zone. On this basis an average of 115-191 on-site jobs are projected to be filled by local residents.

4.5.1.2 Wage Effects

Miller Argent states that wage levels will be similar whichever job figure transpires. In consultation Miller Argent confirmed the wage figure may actually be higher if the split shift operation was used, however, no additional uplift in wage levels has been claimed as part of its analysis. Based on the figures provided average annual wages range from £21,000 – £35,000. The higher end of this range is based on long hours working. The lower figure relates to the split shift operation. Given an expectation that the majority of operatives will opt for long hours working a figure close to the high end of this range is assumed. This compares to average full time wages for Caerphilly (workplace based) of around £23,200 per annum¹⁷. The total wages paid are anticipated to be in the region of £70 million over the life of NLSM operations.

4.5.2 Indirect Effects

HJA has explored supply chain relationships with Miller Argent. HJA believes the assessment provided as part of the Socio Economic chapter of the Environmental Statement¹⁸ is reasonable. Whilst supply contracts will be let on a commercial basis, Miller Argent has incumbent suppliers which are aware of potential growth opportunities. In some cases suppliers are already exploring expansion opportunities in readiness. Miller Argent cannot guarantee that existing suppliers will secure contracts, however, Miller Argent has identified a desire to use reliable local suppliers where possible. Existing suppliers with a proven track record will clearly be in a strong commercial position when tendering for contracts.

Supply chain patterns are assumed to be very closely matched to FLRS operations given a similar plant complement. The impacts are therefore assessed in the same way as those quoted at Chapter 3 of this report. A total of 144 indirect jobs are estimated, of which 26 are on-site and included in the preceding analysis. Of the 118 remaining jobs a further 32 are estimated to be located within the 10 mile impact zone.

As noted at section 3.3 of this report, HJA believes the scale of local indirect jobs could be understated. The figures are estimated using turnover per worker assumptions. Analysis by HJA indicates that the figure used may be too high, therefore under-estimating supported employment. Local indirect employment could be some 40% higher at approximately 45 jobs within the impact zone.

¹⁶ Consistent with approach used for assessing FLRS.

¹⁷ Annual Survey of Hours and Earnings, ONS, 2013

¹⁸ Environmental Statement Volume 1: Technical Assessments, Miller Argent

Some of these jobs within the impact area may be filled by residents from outside the area. According to the 2001 Census 17.5% of persons working in the 10 mile impact area lived outside it¹⁹. This would suggest a range of 26 – 37 indirect jobs in the impact area being taken by residents of the area. The range represents the Miller Argent/PBA analysis and the HJA analysis. The current stated figure within the Miller Argent/PBA analysis falls within the centre of this range.

The WERU analysis combines indirect and induced effects, rather than considering each separately. It also presents data at the Wales level alone. Further comparison of the WERU and Miller Argent/PBA approach is presented in the section on multipliers below. This shows broad alignment between the two approaches when like-for-like data is compared.

4.5.3 Induced Effects

Induced effects capture the effects of incomes earned by employees in the local economy. Miller Argent/PBA uses data gathered from current FLRS employees to inform this assessment. PBA indicated during consultation that this has been cross checked against third party data, although this is not stated in the report. The FLRS analysis is set out in Chapter 3 of this report and HJA has reviewed the data gathered from FLRS employees and cross checked total claimed spending against total earning levels and national family spending patterns, and the figures are plausible.

Miller Argent/PBA estimates 25 jobs supported through induced spending, with 19 of these in the local impact zone. No allowance is made for these jobs being adopted by in-commuters. As with indirect effects, 2001 Census of Population indicated that 17.5% of jobs in the impact zone were taken by those resident outside the area. This would reduce local induced employment to 16 jobs²⁰.

4.6 Summary

Table 4.2 below sets out the summary of the results most directly related to NLSM activity. Table 4.3 illustrates the impact in terms of gross wages paid.

Total employment creation is estimated at 293-300 jobs of which around 70% are located within the 10 mile impact zone. 55-60% are filled by residents of the impact zone.

Jobs in this impact zone and for residents of this zone are particularly valuable given the economic backdrop as summarised in chapter 2 of this report. This identified substantially less favourable employment and labour market circumstances in the impact zone in comparison to the Wales average. Data on jobs density²¹ is illustrated by figure 4.1. This compares the broad heads of the valleys local authority areas (Blaenau Gwent, Caerphilly, Merthyr Tydfil, Neath Port Talbot, RCT and Torfaen) with the coastal belt authorities of Bridgend, Cardiff, Newport and the Vale of Glamorgan.

¹⁹ Some of this leakage effect could be offset by residents filling indirect jobs which are created outside the zone. For example, according to the 2001 Census of Population, 4% of jobs in Wales, outside the 10 mile impact zone are filled by residents of the zone. This could equate to 2 jobs for local residents. The analysis presented quotes jobs as within Wales and outside the impact zone. The closer the jobs are to the impact zone the greater the potential for local residents of the impact zone to fill those jobs.

²⁰ Some of this leakage effect could be offset by residents filling induced jobs which are created outside the zone. For example, according to the 2001 Census of Population, 4% of jobs in Wales, outside the 10 mile impact zone are filled by residents of the zone. In this instance it would be around a quarter of a job.

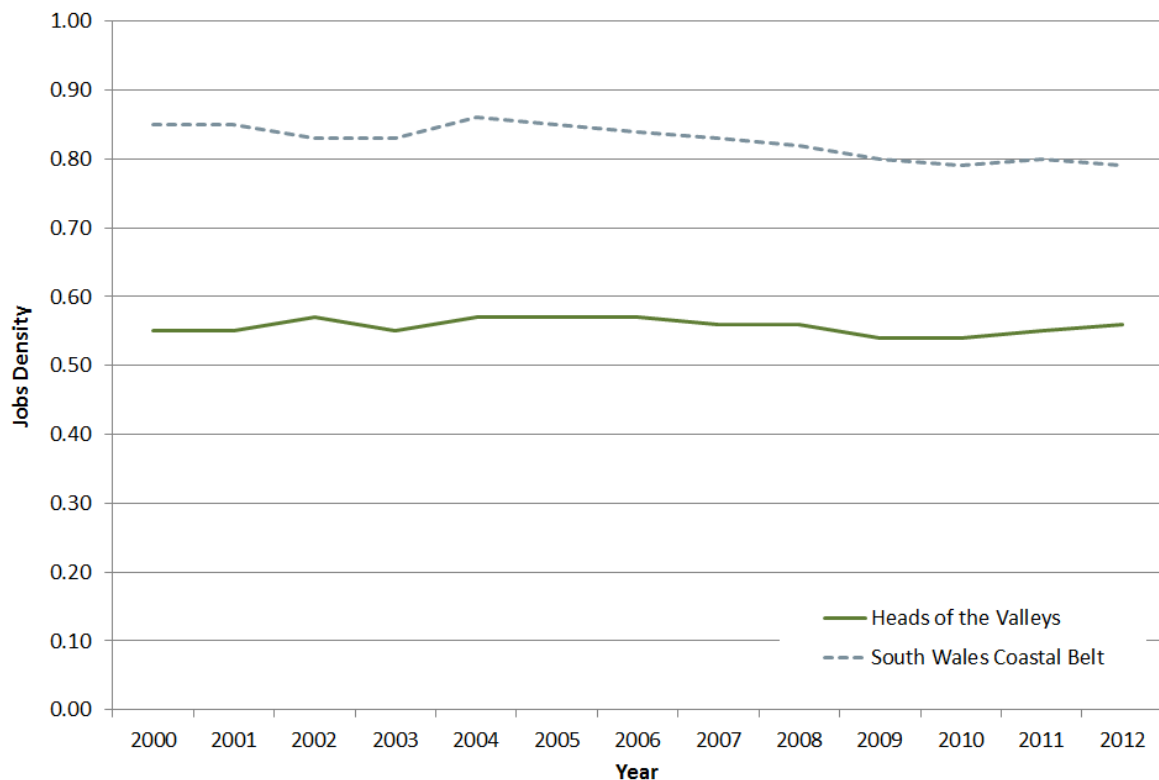
²¹ That is the ratio of total jobs in an area to the population of 16-64 year olds.

This shows the marked difference in total jobs relative to the resident population of these two areas. 2012 data indicated approximately 0.8 jobs for every 16-64 year old in the coastal belt areas compared to less than 0.6 jobs in the heads of the valleys authority areas.

Table 4.2: Summary of NLSM Estimated Employment Impacts (HJA based on Miller Argent/PBA)

	Total	Within 10 miles of FLRS <i>Workplace based</i>	Within 10 miles of FLRS <i>Residence Based</i>
On-site employment	150-157 <i>239 FTEs</i>	150-157 <i>239 FTEs</i>	120-126 <i>191 FTEs</i>
Indirect off-site employment	118	32-45	26-37
Induced employment	25	19	16
Total <i>Using HJA calculations of indirect and induced employment</i>	293-300	201-221	162-179

Figure 4.1: Jobs Density



Gross annual wages supported by NLSM are estimated at around £11 million per annum. Some £9 million per annum is paid to workers who work within the 10 mile impact zone. A little over £7 million is paid to residents of the 10 mile impact zone.

Table 4.3: Summary of NLSM Estimated Wage Impacts (per annum)

Uses HJA estimates for indirect and induced impacts

	Total	Within 10 miles of FLRS <i>Workplace based</i>	Within 10 miles of FLRS <i>Residence Based</i>
On-site employment ²²	£5.3 – 5.5 million	£5.3 – 5.5 million	£4.2 – 4.4 million
Indirect off-site employment ²³	£3.3 million	£0.8 – 1.2 million	£0.7 – 0.9 million
Induced employment ²⁴	£0.7 million	£ 0.5 million	£0.4 million
Total	£9.3 - £9.5 million	£6.6 - £7.2 million	£5.3 - £5.7 million

The review undertaken by HJA identifies that there is actually relatively little discrepancy in the assessment of employment effects undertaken by both Miller Argent/PBA and WERU.

²² Based on average wage data derived from NLSM Planning Statement. Average annual pay per employee £34,666.

²³ For total indirect off-site employment based on Wales mean full time wages £27,567 per annum, Annual Survey of Hours and Earnings, ONS, 2013. For impact zone based on simple mean average for Blaenau Gwent, Merthyr Tydfil and Caerphilly of £25,577 per annum for full time wages (whole economy).

²⁴ For total induced employment based on Wales mean full time wages £27,567 per annum, Annual Survey of Hours and Earnings, ONS, 2013. For impact zone based on simple mean average for Blaenau Gwent, Merthyr Tydfil and Caerphilly of £25,577 per annum for full time wages (whole economy).

5 Inward Investment and Existing Businesses

The submissions made by R&A/GVA make plain the fears and perceptions that NLSM will lead to wider negative economic effects, particularly for businesses located at the Heads of the Valleys Industrial Estate, but also more widely in the Rhymney area. Matters of visual impact, reduced air quality (dust) and noise impact in particular are cited as substantial concerns. There is concern that these will lead to disinvestment from existing businesses and negatively effect future investment decisions from potential occupiers in the area.

It is very difficult to make an accurate assessment of the potential for future investment in the Rhymney area. It is therefore even more challenging to attribute any change in the situation as a result of NLSM. However, to help Caerphilly CBC take an informed position HJA has considered what appear to be the most important factors and sought to gather some evidence with regard to these.

A number of potential factors are at play:

- The overall attraction of the area as an investment and business location
- The wider economic environment
- The potential changes in environmental circumstances as a result of NLSM

HJA has also considered the experiences in other locations following the establishment of new surface mining operations.

5.1 Heads of the Valleys Industrial Estate

The Heads of the Valleys Industrial Estate lies to the west of Rhymney and is the closest industrial area to the proposed NLSM. The recent Caerphilly Employment Land Study report describes the site as an:

Established industrial estate, located off the A469 and divided into two sections by an area of green space and a watercourse. The northern section comprises some 15 mid sized industrial premises, occupied by a range of larger businesses. The southern section comprises a row of industrial units, a large (vacant) manufacturing property and development land.

The 14.3 hectare site comprises 23 units and 5.2 hectares of the site is remaining development land. The site is predominantly (62%) B2 with B1 (c) and B8 uses complementing. The site currently has a 70% occupancy rate. The largest vacancy is a 10,019 sq m former Budelpack logistics facility. Key occupiers are noted as Richards & Appleby, ADV and Convatec.

Discussions with Hansteen (formerly Ashtenne) which is a significant land owner at the estate indicate that whilst the industrial property market has been challenging since the economic downturn the Heads of the Valleys estate has been one of the hardest to let within the Hansteen portfolio. It was noted that existing tenants have stayed a long time, but it has been a struggle to secure new occupiers. However, it was reported that there is some sign of increased interest following investment in units at the site. Hansteen is choosing to neither support nor oppose NLSM

and has no firm view on the potential implications upon the Heads of the Valleys Industrial Estate. Both potential positive and negative consequences were noted in consultation with HJA.

Discussion with another industrial property agent indicated that the Heads of the Valleys Industrial Estate is not as well located as other competing sites in the area, which have direct access to the A465. It was noted that interested occupiers will typically look across the whole Heads of the Valleys area and at present, will find better opportunities (in terms of available premises and location) at other sites such as the Rassau Industrial Estate and Tafarnaubach Industrial Estate. The former also benefits from Enterprise Zone status.

5.2 Wider Economic Context

WERU points out in its analysis the backdrop of declining manufacturing activity in the Heads of the Valleys region. This is argued as a basis for protection of existing manufacturing operations wherever possible. HJA accepts that decisions which might speed the decline of existing sectors should be taken with great care and caution. However, the economic backdrop can be interpreted in a different way. Total manufacturing employment across the UK has been in decline for many years and is forecast to continue to decline. One might reasonably conclude that the manufacturing base in the Rhymney area will show continued signs of this trend with or without the NLSM. As such, one should not consider the current situation continuing in perpetuity as the baseline situation. That is not to say that new occupiers will not show interest in the Heads of the Valleys industrial estate or that existing occupiers will certainly downsize, close or relocate.

Figure 5.1 below shows UK data for historic and forecast total employment and manufacturing employment. This clearly illustrates both the historic trend and future anticipated trend. Figure 5.2 shows employment in the production industries in Caerphilly, Blaenau Gwent and Merthyr Tydfil over the period 2001 – 2012. This shows the local pattern is consistent with the UK national pattern over this period. In percentage terms at both the UK and local level employment has fallen by around 30% over the period 2001-2012. At the UK level the projected decline is anticipated to be less severe in percentage terms, as the economy continues to recover. However, the anticipated direction of travel is clear. This in itself illustrates the broader commercial environment that British manufacturing is facing and reflects both the shift to higher value capital intensive production methods and the loss of low value manufacturing activities to cheaper locations such as eastern Europe and Asia.

Figure 5.1 Indexed Change in Total and Manufacturing Employment in the UK 1991 – 2031.
 (Source: Oxford Economics)

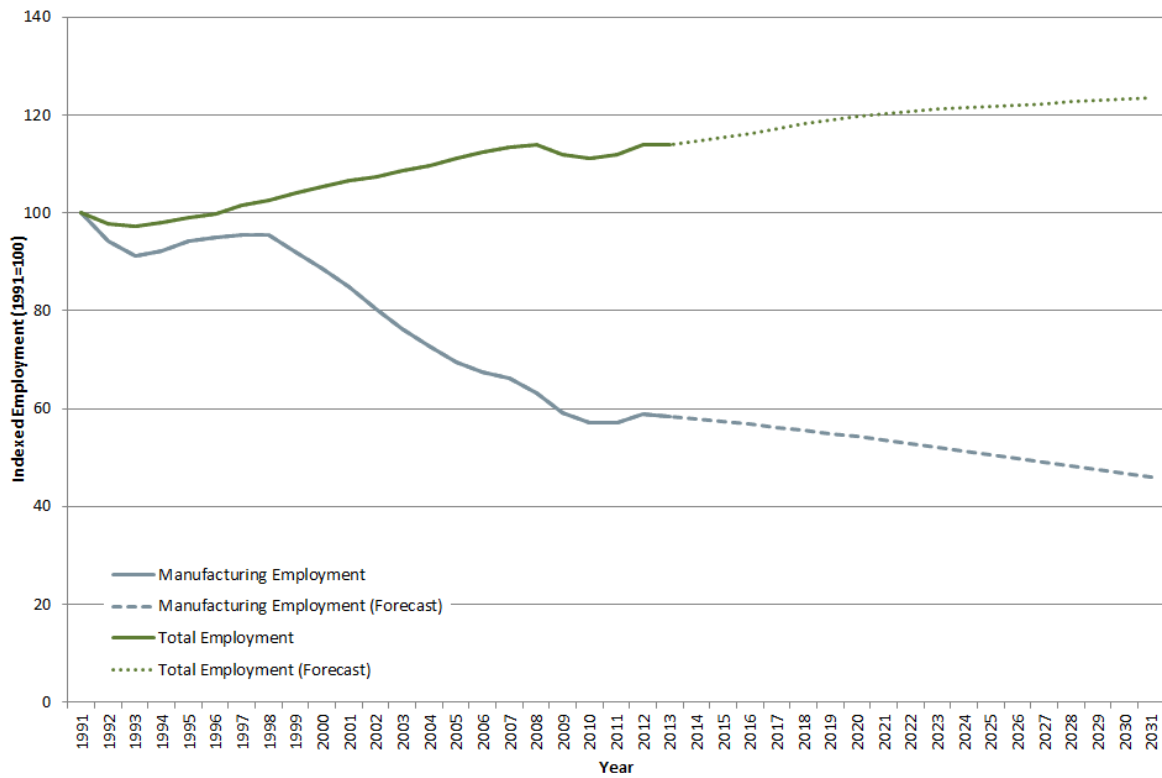
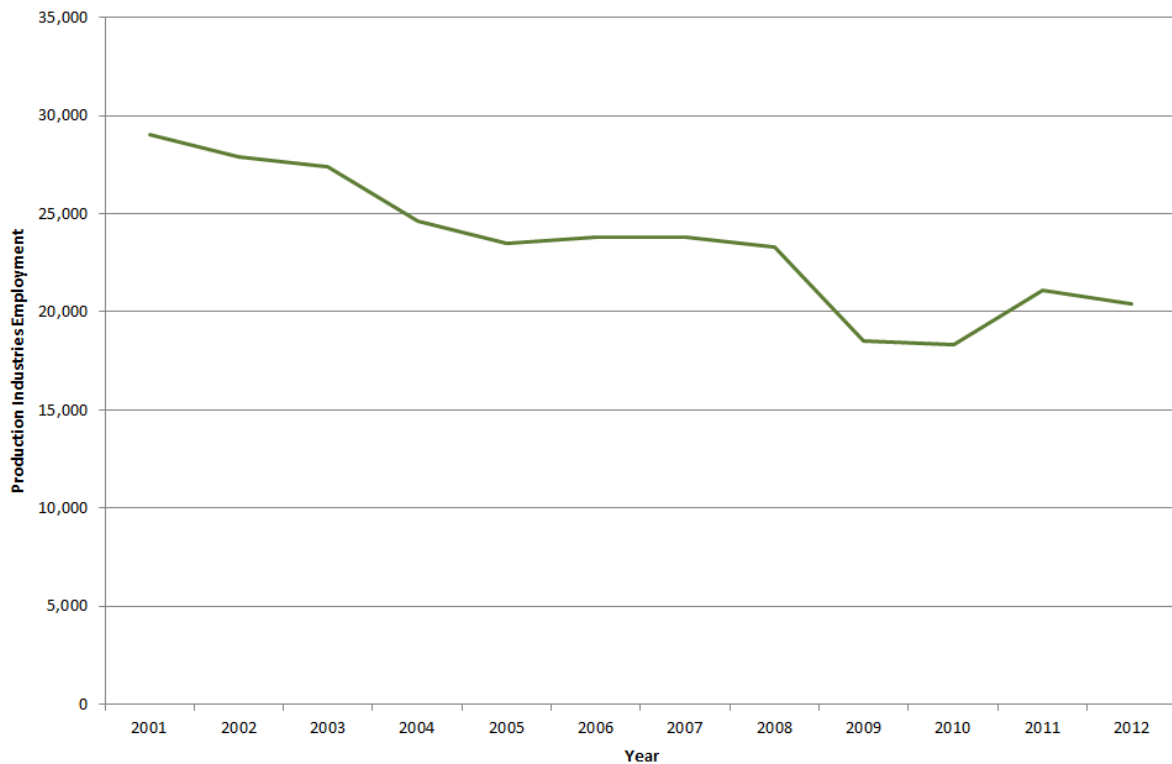


Figure 5.2 Manufacturing Employment in Caerphilly, Blaenau Gwent and Merthyr Tydfil 2001-13
 (Source: Stats Wales)



5.3 Potential Environmental Impacts

It is clear from the nature of objections to NLSM that there are fears relating to potential visual, noise and dust impacts.

The Caerphilly CBC Environmental Health team has indicated that current modelling for particulate matter that could have health implications suggests the NLSM will be well within accepted limits. However, there remains some uncertainty regarding nuisance dust. Caerphilly CBC is awaiting further submissions from Miller Argent and its advisors.

Caerphilly CBC is also awaiting further information on noise and visual impact. As a result no assessment has been completed.

5.4 Risk of Disinvestment from Existing Businesses

Following review of the documentation the issue HJA was keen to explore in most detail related to the likelihood and reasons for disinvestment by existing companies in the Rhymney area. This was the central theme of subsequent consultations. The drafting of the WERU report suggested that the company most strongly indicating the potential for disinvestment was R&A. Whilst other companies subject to consultation as part of the WERU analysis were clearly concerned about the perceived implications of NLSM there was no clear suggestion any other company was seriously or openly considering disinvestment from the area. Indeed, the fears were for the general perception of the area and the challenges which may be posed if other firms chose to disinvest. This position was confirmed with WERU as part of HJA work.

On the basis of the evidence available, HJA is of the view that R&A is the only existing organisation suggesting that it would seriously consider disinvestment from the Heads of the Valleys industrial estate as a result of NLSM. HJA explored this issue in some detail with Mr Mitchell Field at R&A. The company currently employs 140 full time employees at its Heads of the Valleys facility. The facility has been operating for nearly 30 years under the R&A brand and was operating as a cosmetics factory before being acquired by its current owners. It was clear that there are a number of commercial factors influencing location decision making for the company. These are not discussed within this report for reasons of commercial confidentiality. HJA assesses that NLSM has brought such decision making into sharp focus, however, the proposed development is by no means the sole factor or even the predominant factor.

5.4.1 Potential Mitigation

Miller Argent has expressed a willingness to part or fully fund reasonable mitigation measures for R&A (particularly in respect of potential nuisance dust issues) and has negotiated appropriate measures with other companies on the Heads of the Valleys industrial estate. On this basis any negative economic impacts resulting from NLSM might reasonably be expected to be mitigated.

Notwithstanding, R&A may choose to relocate away from the area for other commercial reasons and these in part may have been speeded up or influenced by the proposed NLSM.

5.5 Experience in Merthyr Tydfil following FLRS

The experience of Merthyr Tydfil CBC is largely positive following the FLRS investment. However, the topography and geography is such that the majority of the most proximate business areas are shielded from the visual impact and the excavation site lies to the south and west of the settlement, reducing the effects from prevailing westerly winds. The overburden mound is also located further away from the settlement and in terms of visual impact might be considered less prominent than for NLSM. This is, therefore, a notably different setting to that of the proposed development at NLSM. However, Miller Argent has indicated that the air quality challenges are greater with easterly winds which are generally accompanied by drier conditions. HJA is not in a position to validate such claims.

MTBC indicated that there was opposition in advance of the FLRS development but this has not led to complaints post development. In short, the fears of how the mine would look and feel have not materialised.

Investment at the most proximate industrial areas has been very strong. It has been noted in consultations that there are sensitive manufacturing plants in close proximity to the FLRS excavation area and these have not reported issues as a result of the mine.

Particular reference was made to the Goat Mill Road industrial area which lies in very close proximity to the site. This has seen *“vast expansion in terms of business growth”*. MTBC indicates that the mine is not mentioned as an issue in dealings with businesses at Goat Mill Road and does not appear to have precluded new firms locating on the site. In the region of 15-20 new firms have started at the site in the last two to three years. *“The perception that the mine would make this area a bad place to do business is clearly not the case.”*

Whilst the setting may be different for FLRS than at NLSM, businesses remain, and have invested, in locations with at least some line of sight of mining operations.

5.6 Experience at Shotton, Northumberland

Miller Argent/PBA has submitted supplementary evidence citing the experiences at Shotton, Northumberland. This surface mine operation includes some similarities with NLSM in that sensitive manufacturing businesses are located in close proximity to the extraction area of the mine, and lie to the east, with westerly prevailing winds. The evidence presented by Miller Argent outlines the clearly expressed fears and concerns of businesses in advance of operations. However, the case is made that no problem implications have materialised since mine operations commenced. This case provides similar evidence to that from FLRS.

5.7 Summary

Following a review of the documentary evidence the HJA assessment has focused upon the Heads of the Valleys Industrial Estate and R&A in particular. The evidence suggests:

- The manufacturing sector in the UK and locally has been in decline in employment terms for many years. This trend is forecast to continue, although at a slower rate than in recent years. Whilst the Heads of the Valleys Industrial Estate is diversifying with a mix of tenants there are continuing

pressures on manufacturing operations across the UK which means it is likely manufacturing employment will decline in the area over the next 10-15 years in any event.

- The Heads of the Valleys Industrial Estate has been challenging to let in recent years, with many units lying vacant for some time. Whilst there are some signs of interest returning it was reported that the estate is one of the most challenging to let within the Hansteen portfolio. Another industrial agent has also indicated it is in a weaker competitive position than other nearby estates offering better quality accommodation and connectivity. This does not suggest a context of strong investment demand that might be blighted.
- If it is concluded that there will be significant negative dust, noise and/or visual impacts this will not improve the competitive position of the Heads of the Valleys Industrial Estate or other industrial locations in and around Rhymney. However, it is uncertain as to whether this would create a negative economic impact as a result.
- Based on currently available information, the most serious risk of disinvestment from an existing business in the Rhymney area is that of R&A. A detailed conversation with the owner suggests any disinvestment decision is dependent on a range of commercial factors and not solely the proposed NLSM, although the proposed development has brought such decision making into sharp focus.
- Miller Argent has agreed mitigation measures with other occupiers on the Heads of the Valleys industrial estate and is willing to make such arrangements with R&A. As such, any potential effects attributable to NLSM might reasonably be expected to be mitigated. Whether R&A choose to relocate for other commercial reasons is uncertain. Whilst the mine might have played some role in such a decision the evidence considered by HJA does not support the proposed NLSM being either the sole or even predominant reason for such a decision.
- The evidence in respect of FLRS and Shotton that has been reviewed by HJA suggests that in two other cases where there were significant fears relating to the implications for nearby businesses these have not become a reality. In fact, investment has continued in both locations following surface mining operations
- No evidence has been presented to demonstrate an example to contradict both the FLRS and Shotton examples. It is beyond the scope and budget of the HJA commission at this stage to research other UK surface mine schemes to identify whether such contradictory examples exist.

Overall there is no clear evidence to suggest a substantial negative economic impact as a result of the proposed NLSM. However, that is not to say that businesses will not be affected.

6 Impact on Specific Workforce Groups

This chapter provides analysis of the potential impact of NLSM upon three identified workforce groups.

- The short term and long term unemployed
- Young people
- The current workforce at FLRS and other skilled workers elsewhere in the sector

In order to consider this it is necessary to consider a number of issues. The following general points are helpful to frame this analysis.

- Miller Argent has indicated that the labour force situation is different to the one it faced at the time it commenced operations at FLRS. Whilst it is still possible to back fill positions with skilled operatives to replace low levels of staff turnover (i.e. one or two positions at a time) it does not believe there is a sufficient pool of skilled operatives from which it can meet its workforce needs at NLSM. As a result Miller Argent is already putting in place plans to both recruit and train operatives.
- There are no academic barriers to entry. Therefore, employment opportunities are available to all those with a desire to be trained and with a suitable work ethic to meet the needs of Miller Argent.
- Miller Argent has already commenced engagement with Job Centre Plus and put in place a recruitment, training and development plan to build up a pool of additional skilled operatives at its FLRS operation in order to ensure a workforce is in place for NLSM.

A further issue, which affects all three categories, is that of the wider demand for skilled operatives in the surface mining industry in south Wales. Appendix 2 to this report considers this matter in more detail. This indicates that the implications for each of the three groups have the potential to vary depending on when planning permission is granted. If it is granted in the near future and operations on site are able to commence in 2015/16 there will continue to be a substantial need for skilled operatives in other mining operations in south Wales. If there are delays in the granting of planning permission the requirement for skilled operatives in other mines may reduce (or longer term job security at NLSM may become attractive), hence boosting the potential pool of labour from which Miller Argent can recruit.

Nevertheless, in such a case that would still help to reduce (or avoid an increase) in unemployment in Wales, but the number of jobs that leak outside the 10 mile impact zone may increase as operatives currently working at surface mines in Neath Port Talbot or further west might look to NLSM for secure and stable employment.

The remainder of this chapter is drafted on the basis that if NLSM is approved it is within the next two years reducing the demand for labour from other skilled operatives in the sector.

Short term and long term unemployed

Claimant unemployment data is available for local areas, however, it does not record all unemployment. Broader measures of unemployment such as that measured by the Annual Population Survey are only available at local authority area level and therefore of less use to this analysis.

There is clearly an under-utilised labour supply in the area. Claimant data [all data for April 2014] shows that there are 420 claimants within the immediate impact zone (Rhymney) and 9,150 within the 10 mile impact zone. Around 30% are aged under 24 years in both areas, slightly higher than the Wales average (29%). Around 55% are recorded as long term unemployed (more than 6 months). This is much higher than 46% recorded for Wales as a whole. Around two thirds of claimants are male, the figures within the immediate and 10 mile impact areas are slightly above the Wales average.

Data is recorded on the sought and usual occupations of the claimant unemployed. The data is very similar whether one considers sought or usual occupation. It is likely that many register the same occupation in both categories, with few people looking to move into a new occupational area.

Within the immediate impact zone there are currently 60 claimants seeking work as plant and machine operatives. Only 15 of these are seeking work as transport and mobile machine drivers. Within the 10 mile impact zone the figures rise to 1,355 and 385 respectively. In both cases the vast majority of claimants are male.

This data indicates there is currently an unemployed workforce within the 10 mile impact zone looking for work in the same occupational group as the majority of jobs at the proposed NLSM. Around 55%-60% of these claimants are recorded as long term unemployed. There is a spread of unemployment durations, from 26 weeks to more than 2 years.

There is no guarantee that these claimants will secure employment at NLSM should it be approved. Given the duration of unemployment for some workers it is uncertain as to their level of work readiness. However, Miller Argent is working alongside Job Centre Plus to put in place a recruitment programme which will include work readiness activities. Miller Argent has guaranteed interviews for those that complete this programme. Miller Argent will also offer full on the job training for those that do not have accreditation. Miller Argent has indicated that it is aware of some local residents already pursuing driver training in anticipation of employment opportunities at NLSM.

Young People

Similar to the unemployed, there is no barrier to young people accessing employment opportunities at NLSM. Given the limited capacity amongst the existing skilled workforce there are likely to be a number of opportunities for young people to secure long term and stable employment with accredited training to become a skilled operative of heavy plant.

Claimant unemployment data shows that there are very few young people seeking work in the plant and machine operative occupational grouping within the immediate vicinity of NLSM, however, there are some 275 within the 10 mile impact zone.

The major recruitment phase will be over the first two to three years following planning approval. Evidence from FLRS would suggest secure long term employment opportunities which are desirable for both workers and Miller Argent. As such, whilst there will be some turnover of staff, particularly as older workers reach retirement age, the major opportunities are likely to be in the near term.

Miller Argent has made a commitment to engaging with schools, colleges and universities. It is already working with Job Centre Plus and will provide guaranteed interviews to those applicants that complete the agreed programmes.

The current workforce at Ffos Y Fran Reclamation Scheme and other skilled workers elsewhere in the sector

As outlined at Appendix 2, the vast majority of existing surface mining operations in south Wales are due to continue in their coaling phases until 2020 and beyond. A substantial proportion of the employed workforces will also be retained for around two additional years as part of restoration phases. Therefore, there are long-term, secure employment opportunities for workers already in the sector at their current employment locations. The ageing workforce is a further complicating factor, likely to lead to a reducing pool of skilled operatives in south Wales as increasing numbers of existing workers in the sector move into retirement.

Miller Argent do not anticipate there to be a sufficiently skilled labour force to meet the needs of NLSM and therefore has already put in place arrangements to train a new workforce.

It appears that the major impact for workers already in the sector from approval of NLSM is continued demand for labour which will provide ongoing job security.

7 Conclusions

This chapter sets out broad conclusions from the research undertaken.

There is no major discrepancy between applicant and objector with regards the economic context in which NLSM is proposed. The challenging economic environment within the Rhymney area is recognised by both. There are slightly different interpretations made of the evidence.

Importantly, the review has found that in terms of the direct economic impacts arising from NLSM, and those within its own supply chain and supported by employee expenditure show little variation between the analyses presented by the applicant and the objectors. HJA has identified some minor weaknesses in methodology, but these have relatively little impact on the overall conclusions reached.

The HJA assessment indicates that the likely potential job creation resulting from NLSM is between 201-221 jobs in the 10 mile impact zone. More than 80% of these jobs are anticipated to go to residents of the impact zone.

Without significant delays to planning approval it is likely that NLSM will not attract substantial interest from other surface mines in south Wales. The limited capacity within the surface mining workforce means that it is likely new operatives will be recruited and trained to fill positions at NLSM. Miller Argent is already actively pursuing this strategy. This will create opportunities for both the unemployed and young people in the locality that are able to demonstrate a work ethic. There are no academic barriers to accessing jobs at NLSM. However, jobs are well paid and come with substantial training. This will also provide accreditation for large plant operation that will be transferable to other mines and into the construction sector.

The major area of disagreement in the field of economic impact between applicant and objectors relates to the potential implications for businesses not in the supply chain to Miller Argent, but located in the Rhymney area. HJA has explored this in some detail. HJA has come to the view that the business at most serious risk of disinvestment is R&A. Whilst the proposed NLSM is a factor that has brought the need for forward planning sharply into view there are a range of commercial factors at play in the decision making process of this company.

Whilst no agreement has been reached, Miller Argent has expressed a willingness to mitigate any negative consequences of its proposed investment and therefore any disinvestment decision by R&A would not be attributable to NLSM. Based on the discussions HJA held with R&A it is far from certain whether it would seek to remain or relocate away from the Rhymney area.

Looking more widely, the Heads of the Valleys Industrial Estate is already in a relatively weak competitive position within the wider Heads of the Valleys sub-regional area. Economic forecasts also suggest continued employment decline in manufacturing in the area. Whilst there are no final assessments of dust, noise and visual impacts it is not possible to say whether there will be further detrimental effects. If negative impacts are found to arise this may further weaken the competitive position of the Rhymney area. However, if the position was to weaken, the scale of potential future investment which may be blighted (as suggested by objectors) is somewhat uncertain.

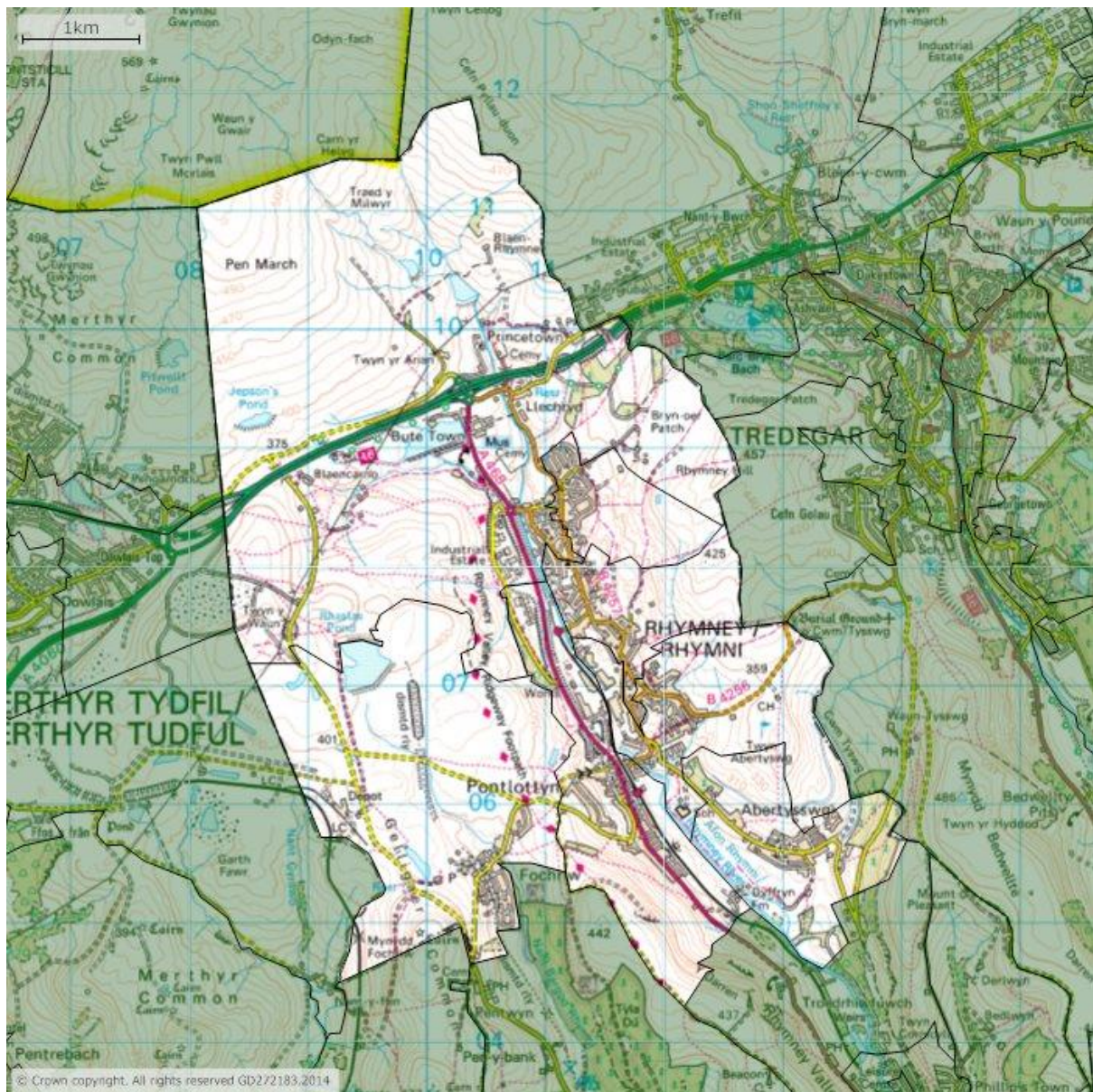
Evidence in respect of FLRS and Shotton, Northumberland shows that in both cases there were substantial fears of blight as a result of proposed surface mines. However, in both cases these fears did not become reality and sensitive industrial occupiers have continued to operate and invest in close proximity to surface mining operations.

Glossary

APS	Aberthaw Power Station
Caerphilly CBC	Caerphilly County Borough Council
FLRS	Ffos y Fran Land Reclamation Scheme
GVA	Green Valleys Alliance
LSOA	Lower Super Output Area
Merthyr Tydfil CBC	Merthyr Tydfil County Borough Council
NLSM	Nant Llesg Surface Mine
PBA	Peter Brett Associates
R&A	Richards & Appleby
WERU	Welsh Economy Research Unit
WTD	Working Time Directive

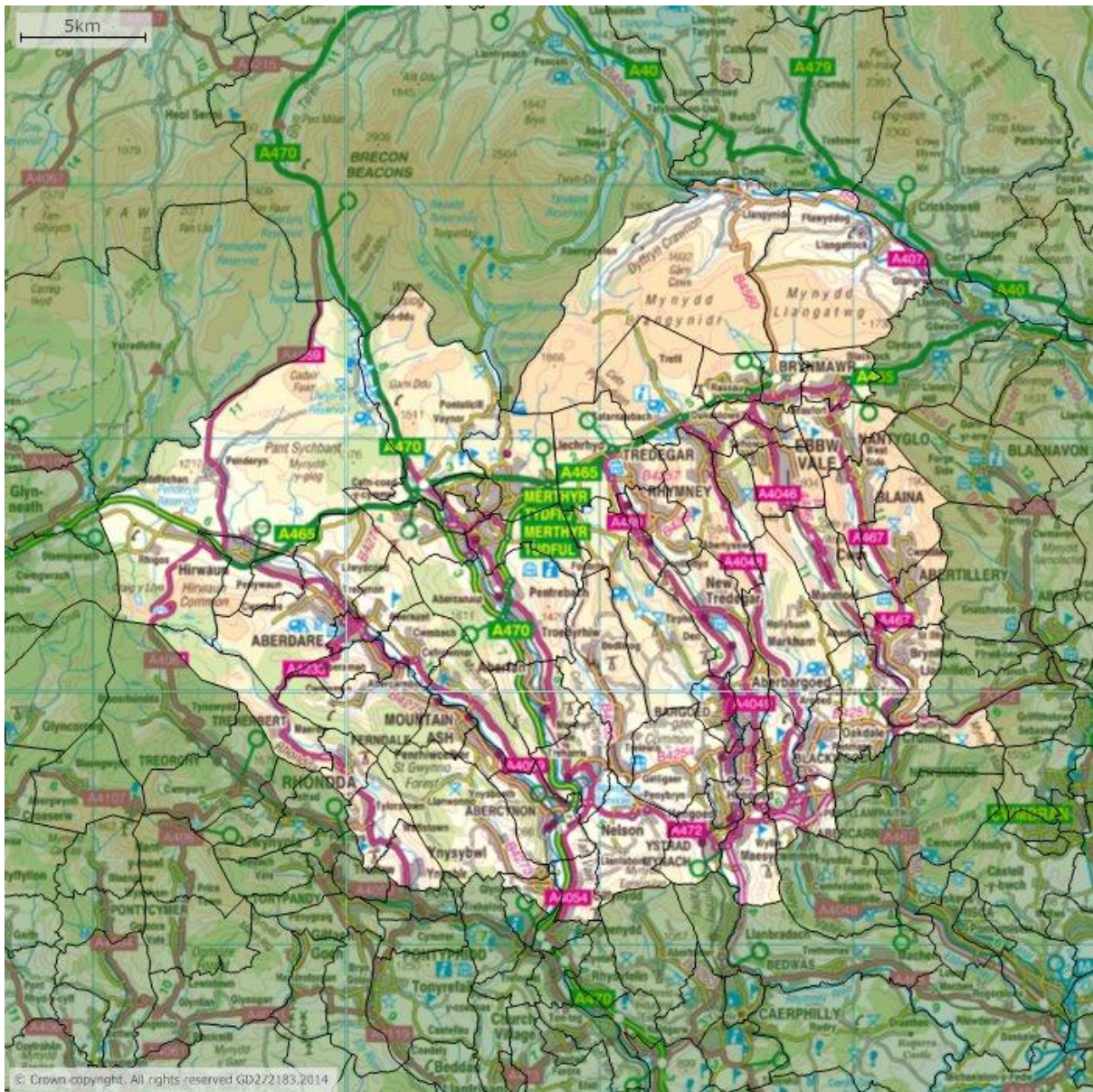
Appendix 1: Area Definitions

Immediate Impact Zone (Rhymney)



- Darren Valley 2
- Moriah 1
- Moriah 2
- Moriah 3
- Pontlottyn
- Twyn Carno 1
- Twyn Carno 2

10 Mile Impact Zone



Blaenau Gwent

- 00PLMA : Abertillery
- 00PLMB : Badminton
- 00PLMC : Beaufort
- 00PLMD : Blaina
- 00PLME : Brynmawr
- 00PLMF : Cwm
- 00PLMG : Cwmtillery
- 00PLMH : Ebbw Vale North
- 00PLMJ : Ebbw Vale South
- 00PLMK : Georgetown
- 00PLML : Llanhilleth
- 00PLMM : Nantyglo
- 00PLMN : Rassau
- 00PLMP : Sirhowy
- 00PLMQ : Six Bells
- 00PLMR : Tredegar Central and West

Caerphilly

- 00KPNP : Aberbargoed
- 00KPNK : Argoed
- 00KPKN : Bargoed
- 00KPNW : Blackwood
- 00KPNX : Cefn Fforest
- 00KPNZ : Crumlin
- 00KPPA : Darren Valley
- 00KPPB : Gilfach
- 00KPPC : Hengoed
- 00KPPE : Maesycwmmmer
- 00KPPG : Moriah
- 00KPPH : Nelson
- 00KPPK : New Tredegar
- 00KPLL : Pengam
- 00KPPM : Penmaen
- 00KPPP : Pontllanfraith
- 00KPPQ : Pontlottyn
- 00KPPR : St. Cattwg
- 00KPPX : Twyn Carno
- 00KPPZ : Ystrad Mynach

Merthyr Tydfil

- 00PHMA : Bedlinog
- 00PHMB : Cyfarthfa
- 00PHMC : Dowlais
- 00PHMD : Gurnos
- 00PHME : Merthyr Vale
- 00PHMF : Park
- 00PHMG : Penydarren
- 00PHMH : Plymouth
- 00PHMJ : Town
- 00PHMK : Treharris
- 00PHML : Vaynor

Powys

- 00NNRW : Llangattock
- 00NNRZ : Llangynidr

RCT

- 00PFPH : Aberaman North
- 00PFPJ : Aberaman South
- 00PFPK : Abercynon
- 00PFPL : Aberdare East
- 00PFPM : Aberdare West/Llwydcoed
- 00PFPR : Cilfynydd
- 00PFPT : Cwmbach
- 00PFPW : Ferndale
- 00PFPY : Glyncoch
- 00PFQB : Hirwaun
- 00PFQH : Maerdy
- 00PFQJ : Mountain Ash East
- 00PFQK : Mountain Ash West
- 00PFQP : Pen-y-waun
- 00PFQL : Penrhiwceiber
- 00PFQT : Rhigos
- 00PFRJ : Tylorstown
- 00PFRL : Ynysshir
- 00PFRM : Ynysybwl

Appendix 2: Considering Additionality

The following analysis reviews the approaches used to make allowances for additionality factors. In each sub-section the term is defined, and an assessment of the suitability of the approach set out. Where weaknesses are identified HJA has sought to present an alternative analysis. This supplements the analysis contained within Chapter 4 of the main report.

Leakage

Leakage is a measure of the impacts which are lost from an area. For example, whilst 100 jobs might be created in a specific location, and this would be the workplace measure of employment, some of those jobs are likely to be taken by in-commuters. By deducting the jobs taken by in-commuters it is possible to measure the effects upon residents in the impact area.

It should be noted that there can be positive impacts from having jobs in an area, even if some are filled by non-residents. The presence of jobs can add to local spending and the economic vitality of an area more generally.

Miller Argent/PBA has used information from the FLRS workforce in order to make an adjustment for leakage of jobs and also indirect (supplier) and induced (employee) expenditure. Use of primary data is appropriate and avoids reliance on general trends – such as commuting data from the Census of Population. Miller Argent is confident that it will fill vacancies at NLSM with a similar proportion of local workers. In part this reflects its preference for local workers, which are indicated to be loyal.

Miller Argent is putting in place training programmes to allow those without the appropriate skills and qualifications at present to access these vacancies. Leakage can be influenced by the ability of the local workforce to access opportunities. Miller Argent has indicated that there are few barriers to entry for the anticipated jobs, and there is no significant reason to suspect the local workforce could not meet the needs. In particular there is an identified pool of unemployed and inactive workers, and a large body of recent speculative applications to Miller Argent. If there was little spare capacity in the local economy, or high barriers to entry to secure positions (e.g. degree level skills) a different approach might be adopted.

A further factor is the degree to which jobs will be attractive to residents from outside the impact zone, particularly operatives working at other surface mines in south Wales. This is in part considered at Chapter 6 and Appendix 3 of this report where the impact on specific workforce groups is assessed. There is potential for some leakage as a result of this, but this is likely to be reflected in the method applied by Miller Argent/PBA which assumes 20% of jobs are filled by those living outside the local impact zone.

One minor weakness in the approach employed by Miller Argent/PBA is that no allowance is made for leakage of indirect and induced jobs i.e. those jobs which might be filled by in-commuters. It is reasonable to assume that some of those jobs will be filled by non-residents of the 10 mile impact zone. The failure to take account of this element leads to a mixture of workplace and resident based measures of employment in some of the reported impacts. The HJA analysis has corrected for this.

Deadweight

This is the do nothing/reference case, which is life carrying on in perpetuity in the absence of the development. There is no prospect of significant economic development at the site in the absence of NLSM and therefore deadweight is discounted as a factor.

Displacement

Displacement takes account of impacts which are offset by compensatory changes elsewhere. These effects can take place in product markets or factor (e.g. labour) markets. For example, if NLSM allowed Miller Argent to make coal sales to Aberthaw Power Station of 500,000 tonnes per annum, which were then offset by reduced coal sales of 500,000 tonnes per annum from another coal supplier in south Wales there would be no net additional effect. Any additional employment would most likely be offset by reduced employment at the competing mine.

HJA has considered the following:

- The likely market for coal and how this relates to other surface mine production in south Wales
- The implications for both the surface mining and infrastructure construction sector arising from a demand for plant operatives/drivers which may hamper output in other firms/sectors

Product Market Displacement

Miller Argent has submitted extensive evidence in respect of the demand for coal. This matter was explored further in consultation between HJA and Miller Argent when supplementary evidence was tabled. HJA is not expert in the area of demand for coal, but has reviewed the available evidence in order to make an informed assessment of the displacement situation.

As noted in the main report, there are complex matters relating to the future of coal fired power generation, including energy and environmental (particularly carbon emissions) policy. HJA has not considered these matters in detail. In order to make an assessment of displacement effects it is assumed that demand for coal from APS, as the primary customer of Miller Argent, will continue for the duration of NLSM. It was stressed to HJA by Miller Argent that coal fired energy generation will continue to be an important part of the UK energy mix for the life of NLSM, even if it has a declining role in the longer term. Information was also provided from the OECD World Energy Outlook 2013 showing forecasts for rising global demand for coal to 2030 and beyond. Fossil fuels are forecast to continue to provide a similar proportion of total energy generation to 2035 in the EU, US and other OECD countries and an increasing proportion in non OECD countries. RWE has recently announced substantial investment at Aberthaw Power Station that will extend the life of the plant under tighter emissions controls. This investment may negate some of the concerns expressed by WERU in its report about the long term future of coal fired power generation at Aberthaw²⁵.

HJA has considered evidence presented by Miller Argent in respect of potential coal production from surface mines in south Wales, including NLSM. This indicates that as coaling commences at NLSM in 2017 (based on current schedule) there is an increase in annual coal production of 250,000 tonnes. Total coal production then returns to previous levels of 2.9 million tonnes per annum in 2018 before

²⁵ See <http://www.npowermediacentre.com/Press-releases/RWE-to-progress-investment-in-emission-reduction-technology-at-Aberthaw-Power-Station-13a6.aspx> and <https://www.rwe.com/web/cms/en/320770/rwe-npower/about-us/our-businesses/power-generation/aberthaw/reducing-emissions-at-aberthaw/> (both last accessed 7/7/14)

declining substantially in 2020 and beyond. It is possible that further coal reserves will be identified and consented at that time, but this is not currently the case. This evidence does not suggest a notable increase in coal production as a result of NLSM and therefore from a supply perspective there is no basis to consider displacement to be a substantial issue. Figures 15.5 and 15.6 of the Miller Argent Planning Statement illustrate the same case²⁶.

The evidence presented by Miller Argent within Chapter 15 of its Planning Statement makes clear that the demand for coal in the UK has continually outstripped UK coal production, which has been in steady decline and is forecast to continue to do so. This is resulting in an increase in coal imports. Figure 15.4 within the Miller Argent Planning Statement²⁷ is perhaps the most helpful illustration of the situation, with imported coal making an increasingly important contribution. On this basis it would appear that imported coal is the most significant balancing factor in meeting coal demand, not competition between UK, and particularly Wales, based mines.

APS has stressed its support for the NLSM scheme and whilst negotiation of contracts would take place on a commercial basis it is evident that there is an existing link and a desire to see this continue if possible in order to ensure a secure and stable local supply of suitable coal for APS. Paragraph 15.21 of the Planning Statement also references the findings of the Planning Inspector considering the FLRS scheme who was satisfied that coal production at FLRS would not displace coal sales from other surface mines in south Wales.

On the basis of the evidence HJA does not believe product market displacement to be a substantial factor affecting the scale of net additional economic impacts from NLSM.

Factor Market Displacement

HJA has explored the possibility for factor market displacement, largely in terms of skilled labour supply. As is noted in the Miller Argent documentation, the majority of labour required relates to the operation of large plant. The skills used are common between the surface mining industry and infrastructure construction²⁸. HJA explored workforce matters with Miller Argent as part of the consultation process to supplement information provided as part of the planning application submission.

This is a complex and uncertain picture which is considered in some detail at chapter 6 of this report when the impacts on particular workforce groups are assessed. The only other surface mines within the 10 mile impact zone are FLRS and Tower. Both will be operating well beyond the recruitment phase of NLSM and will therefore continue to be attractive employment opportunities for existing operatives of those mines. It is beyond the scope of this assessment to consult with all other mines in south Wales to assess the impact of any loss of staff upon their ability to backfill positions and any commensurate impact on output levels. Within the 10 mile impact zone no substantial displacement effect is anticipated.

²⁶ Nant Llesg Surface Mine, Incorporating Land Remediation, Planning Statement, Miller Argent

²⁷ Nant Llesg Surface Mine, Incorporating Land Remediation, Planning Statement, Miller Argent

²⁸ Paragraph 16.24 of the Miller Argent Planning Statement notes that most construction sector growth is expected to be in infrastructure and therefore skills will be transferable. It is reasonable to assume the reverse is also true.

At a Wales level there is potential for some existing workers at other surface mines in south Wales to transfer. It is assumed that such roles would be backfilled rather than impact on output levels. It is also assumed that any short term effects on output levels would be offset through increased activity when the full workforce complement was returned, or through a slight extension to the life of the mine.

Miller Argent is aware of the need to train its own workforce to meet the needs of NLSM and is already putting measures in place to do so and mitigate any displacement effects.

HJA explored the potential effects upon the construction sector at a headline level. Miller Argent noted the very different nature of employment in construction and mining sectors, with jobs at NLSM offering long term stable job opportunities, rather than the short term contract nature of much construction work. As a result the construction workforce is often highly mobile, particularly for national infrastructure development companies. Miller Argent stressed that the training activity they will deliver will provide a future workforce for the infrastructure construction sector.

Within the 10 mile impact zone there is unlikely to be any significant displacement of construction activity as a result of labour market effects caused by NLSM. Short term construction sector requirements could reasonably be filled by mobile workers if such a situation emerged. The training activity of Miller Argent could be viewed as a positive for the construction sector in the longer term, training a new generation of plant operatives at a time when an ageing workforce approaching retirement age is causing problems with skills gaps²⁹.

Substitution

Substitution effects are sometimes described as ‘within firm displacement’. In other words, where a company substitutes one activity for another. In the case of NLSM it is not identified to be a factor that warrants detailed consideration. The NLSM is a substantial extension of current activity levels by Miller Argent in the Heads of the Valleys area.

Multiplier Effects

Multiplier effects generally capture two important linkages that create additional economic effects as a result of a development. Firstly, the additional economic impacts as a result of supply chain activity, which are often referred to as indirect effects; and secondly, the additional impacts created by workers spending wages in the economy and stimulating further economic effects, which are often referred to as induced effects. Frequently what are known as Type II multipliers are used, which capture both indirect and induced effects together. For example, for every 1 direct job created a further 0.3 jobs are created through multiplier (indirect and induced) effects in the impact area.

In the case of the evidence submitted for NLSM, Miller Argent/PBA has considered both indirect and induced effects using primary data made available by Miller Argent from the FLRS. Therefore, rather than using an assumed multiplier to capture these indirect and induced effects, they are modelled

²⁹ For example: <http://feweek.co.uk/2014/02/07/building-a-skilled-construction-workforce-between-the-gaps/> and http://www.ciob.org/sites/default/files/Skills%20Report%202013_0.pdf (last accessed 7/7/14).

using real data. The approach adopted has considered both the scale of expenditure on suppliers and through wages and also the location of this expenditure.

The Miller Argent/PBA approach has considered only one round of indirect and induced effects. One might consider further rounds of effects, for example, where the first tier suppliers to Miller Argent then procure goods and services from their own supply chains, and where wages from those in the jobs created through indirect and induced effects are spent again in the local economy. As money flows through the economy there are often many rounds of effects, although generally diminishing each time. By considering only one round of effects Miller Argent/PBA has sought to avoid over-estimating the impact. In conclusion, it is likely that multiplier effects would be greater than those claimed by Miller Argent/PBA in its evidence.

The WERU analysis uses the Welsh Input-Output tables. These provide a model of the Welsh economy which set out the relationships between different sectors. The tables can be used to assess the effect elsewhere in the economy of a growth in demand in a particular sector. In this instance, WERU was able to test the impact of increasing activity in the mining sector. The tables highlight how this activity would stimulate demand in other sectors of the economy and the jobs and Gross Value Added (GVA) which result.

The WERU approach is based on general relationships in the economy. It is an accepted approach and the Welsh Input Output tables are respected. However, in this instance, the use of tables is not specific to NLSM and cannot capture in detail the nature of supply chain relationships used by Miller Argent.

HJA has used the two sets of analysis to compare and contrast the indirect and induced effects of NLSM as set out by Miller Argent/PBA and WERU. There are some differences in results and HJA has sought to explain the reasons for these differences as far as is possible.

The Miller Argent/PBA analysis, as noted above is based on actual data from FLRS. The table below sets out these figures. There is a slight re-presentation to ensure that all indirect employment, whether on or off site, is classified as indirect. As a result, the direct on-site employment appears slightly lower than that presented by Miller Argent/PBA as generally all on-site employment is presented together.

As noted previously, the employment range for direct employment presented by Miller Argent/PBA reflects how shift patterns are structured. Whilst it is reasonable to expect the actual level of jobs to be closer to the lower end of the range, although not at the lowest point, it is important to remember that this is based on many staff working a 57 hour week. As a result, one might reasonably consider these to be greater than FTE jobs. In order to compare like for like with other FTE employment opportunities the higher end of the range, using a maximum 48 hour week would appear reasonable. This is still well above what many would consider FTE at around 35 hours per week.

HJA has derived multipliers from the Miller Argent/PBA analysis. This is calculated by dividing the total number of indirect and induced jobs by the total direct jobs. The HJA derived multiplier is shown as a range given the range of direct jobs. The lower range multiplier relates to the higher estimate of jobs (as the denominator in the equation is larger).

HJA has compared the derived multipliers with the multiplier for mining used by WERU in its analysis (p20, para 4.3). WERU only states a Wales level multiplier based on the Welsh Input Output tables. As is shown in the table, the WERU figure of 0.6 additional jobs in the Welsh economy is broadly aligned with the lower end of the range derived from the Miller Argent/PBA analysis.

HJA would reiterate that the approach used by Miller Argent/PBA draws on actual data from FLRS. There is also a clearly stated intention from Miller Argent to continue to use local suppliers where commercially appropriate. Miller Argent has identified that existing suppliers are well aware of plans for NLSM, as is evidenced through letters of support for the planning application. It was indicated to HJA that such suppliers are clearly keen to secure further contracts with Miller Argent and are actively preparing for this. That is no guarantee that existing suppliers will be successful, but suggests there is clear potential for suppliers in both the local area and within the rest of Wales to secure supply relationships.

Table A2.1 – Multiplier Effects

	Within 10 Miles	Within Wales	Total
Direct On-Site Jobs <i>Discounts on site subcontractors</i>	118-213	118-213	118-213
Indirect	58	132	144
Induced	19	25	25
Total Indirect & Induced	77	157	169
Total Employment	195-290	275-370	287-382
HJA derived Multiplier	0.4 - 0.7	0.7 - 1.3	0.8 – 1.4
WERU Multiplier	NA	0.6	NA

Appendix 3: Assessing Specific Workforce Effects – Additional Information

This appendix provides analysis to supplement Chapter 6 of the main report, considering the impacts on three specific groups within the workforce. In particular, this appendix presents a broad analysis of the potential workforce issues in the surface mining industry in south Wales.

The effects on each group may in part relate to the timing of planning permission being granted. At present it is anticipated that there will be a substantive need to train additional operatives to meet the workforce needs of NLSM. With a prompt granting of planning permission it is currently estimated that coaling will begin in 2017 with a phased increase in output to reach full capacity at 2019. In workforce terms peak employment at NLSM is reached in the second half of year 1. It is assumed that this would be 2016/2017.

Miller Argent is already making preparations³⁰ to ensure a sufficient workforce will be in place through adjustments to operational arrangements at FLRS. This will ensure a smooth start up at NLSM as it will not be possible to recruit and train a new workforce at project start up. In practice this means that a large element of the workforce will be recruited and trained at FLRS in advance of commencement of operations at NLSM. This will mean moving to a split shift arrangement at FLRS as new operatives are trained. At commencement of operations at NLSM this additional workforce will be transferred to the NLSM site. On this basis it is reasonable to assume that employment opportunities will actually be created in advance of 2016 with some recruitment potentially commencing in 2014.

Other Surface Mines in South Wales

Table 15.6 of the Planning Statement submitted by Miller Argent sets out details of existing surface mines in South Wales. Three small mines with a total coal reserve of less than 100,000 tonnes are excluded from the following analysis. The remaining six mines and current estimates for remaining coaling are set out below. The information states the anticipated end of coaling. However, the employment profile for NLSM as submitted by Miller Argent some 70% of workforce is retained for a number of years post-coaling.

- FLRS, Merthyr Tydfil will continue to be operational with full capacity coaling until 2018 and at almost 70% of capacity until 2021. (110%³¹)
- East Pit, Neath Port Talbot is due to complete coaling in 2015/16 (c40%). However, an extension has recently been granted which will extend operations to 2019.
- Nant-y-Mynydd, Neath Port Talbot is due to complete coaling in 2014/15 (15%)
- Nant Helen, Powys is anticipated to continue at capacity until at least the end of 2017/18 (55%) following the recent granting of an extension at Nant Helen Remainder.

³⁰ Miller Argent is already training staff to become driver trainers for new operatives.

³¹ Figures in parenthesis indicate the percentage of annual NLSM coal production achieved at each of the other mines in south Wales when operating at peak capacity. These figures are used as a proxy to allow comparison of mine operations.

- Selar, Neath Port Talbot is due to complete coaling in 2015. An extension was granted in December 2013 which will require a four and a half year coaling period, likely to extend to 2018/19 (c45%)
- Tower is anticipated to continue at capacity until 2020 (95%). A western extension is currently subject to planning.

Mines which are not yet operational³² and not listed above include:

- Bryn Defaid which was recently granted planning with anticipated coaling over the period 2015–2019 (32%)

Further small mines at Bryncwm and Pont Henry are subject to planning.

Based on the evidence HJA has made the following assumptions:

- FLRS, Nant Helen, East Pit, Selar and Tower will require workforce for coaling and restoration until 2020 and beyond.
- Nant-y-Mynydd is projected to complete coaling in the period 2014-15. Activity at Nant-y-Mynydd equates to around 15% of proposed levels at NLSM. Restoration works will continue beyond the coaling period which could reasonably require a workforce of 50-70% of current levels for an additional 2-3 years.
- Bryn Defaid will come on stream and require a workforce equivalent to 30% of NL over a similar time frame.

It would appear that the vast majority of operational surface mines will be continuing to 2020 and beyond. The Bryn Defaid mine which has planning approval in RCT is itself a larger capacity operation than Nant-y-Mynydd and in closer proximity than NLSM. Planning documentation in support of other recent surface mine applications also identifies 80% of workforce resident with 10 mile impact zones. On this basis it is likely that existing workforces will remain with their existing operations given the evidence that they live locally and will be able to secure employment for at least five or more years.

The information provided by Miller Argent suggests that the NLSM workforce will be recruited and trained from 2014/2015. This is five or more years ahead of the release of workers from any of the large identified sites. This analysis corroborates the assertion from Miller Argent that a large scale recruitment of operatives will require a substantial training effort given the fact that there is no substantial trained and available workforce. Miller Argent noted that when FLRS opened it was possible to recruit workers with previous relevant experience, but over time this has become harder.

It is therefore assumed that a very limited proportion of the current surface mining workforce will be available to work at Nant Llesg and any circulation of workforce between mines will require backfilling at the original operation, and is therefore considered net neutral within the wider mining sub-region which stretches across the heads of the valley area.

The complexity of the picture increases if planning permission is not granted for some time. As a result the described timeline will slip and it is possible that a greater proportion of the required

³² The Planning Statement makes reference to Varteg Hill as a site with planning permission. HJA understands that this site was refused permission and it is not therefore considered in this analysis.

NLSM workforce could be met by workers leaving decommissioned mine operations elsewhere in the sub-region. However, unless the delay impacted to such an extent that operations at NLSM did not commence until much closer to 2020 this impact is still likely to be relatively muted.

A further factor that has not been explored in great detail is that of the ageing workforce which has been report to HJA by Miller Argent. This a recognised challenge for many sectors. By 2020 a further cohort of skilled operative workers will be nearing retirement age and therefore the trend will be towards a declining total skilled workforce in south Wales without sufficient activity to train replacement workers.