BEDWAS TIP RECLAMATION PROJECT

Information Paper

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IP1: Project Principles and Access Roads

This Information Paper outlines ERI Reclamation's proposals for the Bedwas Tips Reclamation Project focussing on its project principles and access road.

This paper provides a summary of the project principles and proposed access routes to the reclamation site and for further more detailed information please refer to the project's draft EIA published throigh ERI Reclamation's website.

It has been produced as part of ERI Reclamation's consultation for this project and if you have further questions about this particular aspect of the Bedwas Tips Reclamation Project then please contact us at:

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Useful Information

Much of the information contained within this Information Paper has been extracted or summarised from the various draft documents ERI has produced and made available through its Pre-application Consultation ("PAC").

Whilst, these documents remain draft until a formal planning application is made they remain a useful source of information to which stakeholders can refer.

This table provides links to the PAC documents:

Document	Link
Website	https://erireclamation.co.uk/
Website – Consultation documents	https://erireclamation.co.uk/bedwas/
Environmental Impact Assessment (Full Version)	https://erireclamation.co.uk/wp-content/uploads/2024/01/V1-Environmental-Statement-complete.pdf
Non-technical Summary of the EIA	https://erireclamation.co.uk/wp-content/uploads/2024/01/V4-Non-Technical-Summary.pdf
Planning Statement	https://erireclamation.co.uk/wp-content/uploads/2024/01/Bedwas-Tip-Planning-Statement-P01.pdf
Transport Statement	https://erireclamation.co.uk/wp-content/uploads/2024/01/Bedwas-Tips-Reclamation-Scheme-Transport-Statement.pdf
Six Bells reclamation project	https://erireclamation.co.uk/six-bells/

1. Project Principles

Project Background

1.1 Bedwas is located in Caerphilly County Borough, South Wales, being home to the former Bedwas Navigation Colliery. Bedwas Navigation Colliery was operational between 1913 and 1985 and was both private and publicly owned during its operational life.

1.2 The spoil from this colliery was deposited at Mynydd y Grug over three distinct tips: Tip1 and Tip 2 and at the former Bedwas Colliery site.

Tip 1 is located on the southern face of Mynydd y Grug
Tip 2 is located on the peak of Mynydd y Grug.
Tip 3 is loacted to the south of the Colliery Tip
Bedwas Colliery Tip – located on the southern face of Mynydd y Grug at the former Bedwas Colliery and coking site.

Tips 1, 2 and 3 are currently owned by Caerphilly County Borough Council ("CCBC") and are the three tips ERI is proposing to reclaim.

The Bedwas Colliery Tip is located at the former Bedwas Colliery and coking site and is in private ownership and does not form part of the scope of the Bedwas Tips Reclamation Project ("BTRP").

1.3 In February 2020, due to Storm Dennis, a section of the upper Tylorstown Tip collapsed causing damage to the local area highlighting concerns regarding the stability of other disused coal tips located across Wales. As a result of this, the Welsh Government established the joint Coal Tip Safety Taskforce to assess the immediate risk of former coal tips.

1.4 The Coal Tip Safety Taskforce undertook its assessment of Welsh tips and concluded that Bedwas Tips should be categorised as Category D tips which is defined as "*A tip with the potential to impact public safety, to be inspected at least twice a year.*"

1.5 The public safety risks associated with coal tips have long been understood but the assessment of the Coal Tip Safety Group clarified those tips most at risk (category D) of which Bedwas was one. The main risks associated with Bedwas are understood to be risk of tip fire and contamination of local watercourses (including Rhymney River) with land stability being of a lesser concern.

1.6 The public safety concerns are primarily as a consequence of the presence of coal within the tip spoil as this coal is the main contributor to both risk of combustion and contamination of watercourses. Further, coal is also a contributor to land instability although there are various factors which contribute to this alongside coal.

1.7 Any successful coal tip reclamation project must remove coal from the tip spoil to ensure removal of the fire risk, watercourse contamination and land-slippage risk.

Without the removal of coal from this spoil, the public safety benefits cannot be realised and, therefore, it's removal is the most ciritical aspect of any reclamation project where public safety and environmental concerns are the primary driver of such project.

1.8 Caerphilly County Borough Council ("CCBC") approached ERI in 2019 with an offer to allow the remediation of Bedwas tips by ERI. ERI had successfully delivered the remediation of Six Bells, a former coal tip site, which was made safe by extracting coal from the spoil and was then reprofiled and reclaimed into a rewilded landscape.

1.9 ERI's proposal at Bedwas is to undertake a similar reclamation project as that at Six Bells.

In broad terms this involves the remediation and restoration of the Tips 1 and 2 through the removal of economically viable coal from the spoil and the re-engineering, reprofiling and reclamation of the tips to ensure;

the fire risk is removed;
effective water management across the site;
watercourse contamination is removed;
Ground stability;
the removal of land slippage risk.
returning the of the tips to a rewilded state

The re-engineering, reprofiling reclamation of the site will enable upland grazing of the land and return it to a more natural landscape, similar to how it would have been prior to the tip spoil being laid.

When completed, it is intended that the Tips will be reclassified as Category A, which is described by the Coal Tip Safety Taskforce as "*A tip with the very unlikely potential to impact public safety.*"

BTRP - Reclamation Principles

1.10 Prior to the commencement of the main project works, ERI will remove all existing flora and fauna and create earth bunds from it to allow it to remain growing on-site in anticipation of its relaying within the final reclamation.

1.11 Once this stage is completed ERI will commence the excavation of tip spoil starting a Tip 1 first and then TIP 2 later.

1.12 The washing and processing facilitates which enable the separation of coal from the tip spoil are located at Tip 2. Therefore, as the tip spoil is excavated from Tip 1 it is transported to the facilities at Tip 2 where it is washed and separated into inert waste (shale and fines) and coal.

The same process will be applied to Tip 2 although the excavated spoil has less far to travel given the processing facilities are located at Tip 2.

The excavation and processing activities will interface with the Bedwas and Trethomas communities primarily rather than the Cwmfelinfach and Wattsville communities.

1.13 Once the coal is separated from the tip spoil, it is then loaded onto HGV's and transported off site via the proposed haul road. The separated inert waste is retained on site and used for the reprofiling and reclamation of the tips as required.

The haul road and its use will primarily interface with the Cwmfelinfach and Wattsville communities rather than the Bedwas and Trethomas communities.

1.14 The excavation of Tips 1 and 2 is phased which means reclamation of the tips is also phased. Therefore, Tip 1 will be reclaimed once the excavation of it is complete and this will occur as Tip 2 is being excavated. This Phased approach to reclamation provides greater surety to CCBC and the local community that the project will rewild these two tips as the project progresses.

Further, as is usual for type of reclamation project, ERI will provide a bond to CCBC which covers the cost of the reclamation as further security for the completion of the project.

1.15 In order to extract the coal from the tip spoil, this requires the phased and safe excavation of this spoil.

This excavation is carried out by using a range of established techniques and standard equipment including earth excavators and earth movers which will be continuously active over both Tips 1 and 2 for the duration of Stage 1 and 2 of the project (see Section 2 below).

1.16 Excavation of the tip spoil at both tips will continue on until such point the spoil has been fully removed.

Once this point has been reached the inert spoil is placed back in the land which is reprofiled and compacted, then, covered with top soils extracted from site and then fertilised and seeded alongside returning the stored flora and fauna.

Final Reclamation Scheme

1.17 The restoration of the Bedwas tips would be undertaken in line with the best available restoration techniques to ensure enhanced landscape value and encourage habitat creation to support enhanced biodiversity.

As part of the reclamation, ERI will protect the limited existing ecology of the site, then sub-soil and topsoil would be relayed over the newly reprofiled tip in a way that retains both native species and provides an opportunity for reseeding mixed native grasses and extensive tree planting.

The final reclamation scheme will return the tips to a more natural landscape, similar to how it would have been prior to the tip spoil being laid.

1.18 ERI is currently considering a number of other opportunites which will further enhance the biodiversity and appeal of the reclaimed tips including;

- provision of water features – ponds;
- creation of pathways/trails;
- Retention of access roads which will provide enhanced access to Mynydd y Grug and Sirhowy Valley Park;
- public art opportunities;
- Erection of bird boxes.

ERI welcomes suggestions from local commnities as it develops these other proposals.

1.19 The reclaimed environment will be accessible and available to use by all surrounding communities and will sit alongside Sirhowy Valley Park and accessible through it.

It is hoped that all surrounding communities will access, use and enjoy the reclaimed tips seeing it as a newly created extension of the natual environment of Sirhowy Valley Park and its surroundings.

Planning Policy

1.20 The planning framework for the BTRP is extensive and a summary of this framework is provided through the EIA (Section 1.4). Furthermore, this planning framework is described in detail within ERI's Planning Statement.

Please refer to the earlier section entitled 'Useful Information' for links to both the EIA and Planning Statement (amongst other documents).

Project Funding and Financial Benefits

1.21 As previously stated, the critical aspect to enable delivery of the safety and environmental enhancements proposed by the BTRP is the need to separate and remove the coal from the coal tip spoil.

Given this critical activity would result in stockpiles of extracted and separated coal, it presents a unique opportunity to then sell on this coal to fund the reclamation – the same project and funding model also used for the Six Bells Colliery remediation and others alike.

1.22 Reusing this extracted and Reduced Carbon Coal ("RCC") as an alternative to imported virgin foreign coal represents a more sustainable source of lower carbon coal than both newly extracted coal and imported industrial coal.

While the Welsh Government is committed to phasing out fossil fuels by 2050, we recognise Welsh Government's support for low carbon alternatives to imported coal as a key stage in the transition of industry to carbon neutrality.

1.23 ERI's proposal is to sell on these stockpiles of coal to heavy industry, the cement manufacturing industry and potentially energy production industry to help contribute to carbon reduction in the medium term.

1.24 CCBC owns Tips 1 and 2 and therefore retains the liability for the both the maintenance and inspection of these tips (given their Category D status).

This liability has cost CCBC around £5 million in the last couple of years and will continue to impose a cost on CCBC for years to come unless reclamation occurs.

Furthermore, should any of the safety risks identified with these tips be realised, then CCBC would potentially have to fund and manage any remedial works to make them safe again.

Estimates obtained by CCBC some years ago estimated the cost of reclaiming these tips to a safe state to be in the order of £30-40 million.

1.25 ERI's financing model would remove both the yearly cost to CCBC of inspecting and remediating any issues and fully fund the reclamation costs ensuring these monies are available to CCBC to support its core services rather then these coal tips.

1.26 To ensure the successful remediation of these tips, ERI proposes a phased reclamation of these tips and will provide a bond to CCBC to cover the cost of this reclamation.

Alongside this, any planning consent will impose upon ERI the obligation to reclaim the site and this will likely be reinforced through leases granted by CCBC to ERI to enable use and occupation of CCBC's land for this project.

2. Project Programme

2.1 The Bedwas Tip Reclamation Project ("BTRP") consists of three key stages:

- **Stage 1**: preliminaries – this stage involves the preliminary activities required to enable the main project works to commence. Activities in this stage include the formation of the access roads, site investigations, plant and equipment delivery and erection, site planning and set up.

  Approximate programme: around 4-6 months

- **Stage 2**: main project works – this stage involves the commencement and delivery of the main project works. Activities in this stage include such activities as the removal and storage of existing flora and fauna, excavation of coal tip spoil, washing and separation of the spoil, removal off-site of the separated coal, removal of plant and equipment, reprofiling of land, replantng of existing flora and fauna and fertilising and rewilding of the land.

  Approximate programme: upto 5 years

- **Stage 3**: monitoring and maintenance – this stage involves the monitoring and maintenance of the reclaimed lands. Activities in this stage include site visits to monitor the reclamation, to supplement this reclamation, further fertilising and seeding only if required.

  Approximate programme: for around 5 years after Stage 2

2.2 ERI's current programme proposes the commencement of its Stage 2 works in September 2024 with Stage 1 works delivered up to this date.

2.3 This programme is continuously being developed and a key influence on when the project can commence will be the formal planning application and associated decision, as many of the activities even at Stage 1 cannot be commenced without the requisite planning approval.

ERI is still refining its programme and seeking to reduce, where it can, its Stage 1 and 2 timelines.

2.4 The reclamation of the tips will be carried out in phases during Stage 2 with Tip 1 being the first tip to be reclaimed and Tip 2 following afterwards. Tip 3 will be reclaimed again in Stage 2 in a phased manner as its use diminishes.

Under the current programme Tip 1 would be reclaimed in around 18 months from the commencement of Stage 2 with Tips 2 and 3 completed by the end of Stage 2.

2.5 If ERI is successful in obtaining planning consent, the programme can be finalised and will be made publicly available to local communities and stakeholders alike.

3. Access Roads - background

3.1 The BTRP delivers significant safety and environmental benefits but in order to deliver these benefits, the separation and removal of the coal spoil is critical.

3.2 The volumes of coal which are required to be removed in order deliver the benefits require an access and egress route which can accommodate regular lorry movements and provide access to major road networks for the onward transportation, whilst reducing the impact on local communities.

3.3 As part of the BTRP planning application an EIA and Transport Assessment has been produced which consider both the noise and road capacity impacts of the preferred access route.

3.4 **Stage 1 HGV movements**

During Stage 1 of the project it is estimated the traffic flow of HGVs will be around 60 HGV movements over a 4 month period whilst bringing in plant and equipment to site.

The likely impact on the local highway network capacity of these movements has been assessed as negligible and this assessment is set out in ERI's Transport Assessment.

3.5 **Stage 2 HGV movements**

It is estimated that there is around 468,000 tonnes of coal which will need to be will be removed via the use of 20 tonne HGVs. Based on this tonnage, the expected number of lorry movements during Stage 2 is broken down as follows (based on a 5-day working week):

- 468,000 tonnes / 20 tonne HGV = 23,400 movements over 5 years
- 23,400 movements / 5 years = 4,680 movements per year
- 4,680 movements / 52 weeks = 90 movements per week
- 90 movements / 5 days = 18 movements a day

The likely impact on the local highway network capacity of these movements has been assessed as negligible and this assessment is set out in ERI's Transport Assessment.

3.6 Any planning approval will very likely include a Code of Construction Practice (or similar document) which sets out the standards and procedures to which ERI must adhere in order to manage the potential environmental impacts of the BTRP.

The matters which will be regulated through this Code of Construction Practice will include (amongst other matters):

- Permitted working hours.
- Noise and dust monitoring.
- Air quality.
- Agriculture, forestry and soil.
- Ecology.
- Traffic and transport.
- Waste management

3.7 In deciding which access route to propose, a number of key considerations fed into the assessment of the preferred access route including:

- What access routes are available;
- Can the access route physically accommodate the required vehicles and their associated turning circles;
- How many lorry movements would it have to accommodate;
- How can the impact on the local minor-road networks be minimised;
- Can the access route avoid or reduce passing sensitive noise receptors;
- Will the chosen route require significant and disruptive enabling works to enable its use – junction amendments, layby creation, road widening etc.;
- Are any PRoWs affected and can the number affected be minimised;
- What impact will the use of the access route have on local road users including residents, farming communities and businesses;
- Will traffic management (road closures, diversions or traffic lights) be required to enable use of the chosen access route;
- Does the access route include public and private highways or land;
- Will it allow for a direct connection into the local major-road network;
- Can the available access routes be legally delivered;
- What footpaths, public rights of way and bridleways would need to be accommodated;
- Will the use of compulsory purchase powers be required to enable its use or amendments required;

3.8 All HGVs used on the BTRP will be required to use HVO+ fuels where possible as an alternative to regular diesel. This fuel type reduces CO2 emissions by 98%.

4. Access Road – Preferred Option and Alternatives

4.1 Bedwas Tips are located atop and on the side of Mynydd y Grug. Access to these tips is difficult as it has limited access options especially for HGVs.

In deciding upon the preferred access route to the site the various access route options were considered and a plan of these access routes can be found in Appendix 1.

A summary table setting out the considerations concerning the various access routes is provided at Appendix 2.

4.2 After assessing the access road options available the preferred route for HGV traffic has been selected by ERI as the existing forest track running along the north-eastern face of Mynydd y Grug and which will connect into the unnamed access road to Sirhowy Valley Country Park.

Non-HGV traffic/staff will not access the project facilities via the preferred route but instead by routes which have been discounted as HGV routes.

4.3 In order to utilise the preferred route there will be enabling works required including:

- Track widening and stabilisation;
- Resurfacing with natural stone extracted on-site;
- Creation of a new section of road (around 500m in length);
- Creation of laybys to allow vehicles to safely pass;
- Creation of a new road junction onto Sirhowy Valley Country Park access road (opposite Full Moon Industrial Estate);
- PRoW crossing points;
- At Tip 2 a short diversion of track is needed to maintain access.

4.4 The new road junction onto Sirhowy Valley Country Park access road is proposed after consultation with CCBC's Highways Team being its preferred location for such a junction.

CCBC and ERI have discussed creating a junction directly onto the nearby roundabout but due to certain highway constraints this was deemed inappropriate.

4.5 The preferred access route has a number of tangible benefits when compared to the alternatives and these include:

- It connects directly to the major A-road network negating to the need to use the local minor roads instead. This reduces the impact on local residents and business by removing the use of local roads and the conflicts this will cause;

- All other HGV routes (with the exception of Route 1) pass directly through densely populated residential areas along routes that are minor of nature, have on-street parking either side of the routes and will be directly affected by HGV movements;

- HGV routes passing through densely populated residential areas along minor residential roads are normally discouraged by highways authorities as not appropriate for lorry routes;

- It provides an access route which is entirely separated from the local minor-road network and the impact this would have;

- It ensures that local farming, commercial and residential communities will not be impacted by regular lorry movements passing directly past their property or sharing the local minor-road capacity;

- As the route is remote from the local road network and residential properties any noise impacts are consequently minimised;

- It ensures that local minor-road networks aren't adversely affected by larger and heavier vehicles passing over them and the damage this might cause;

- It provides an access route which can accommodate the swept path of HGVs which alternative access routes would struggle to accommodate;

- It ensures that working farm vehicles, commercial vehicles and residential vehicles are separated from HGV traffic meaning that it minimises effects of any congestion on the local minor-road network;

- Alternative access routes would likely require amendments, works and traffic management to enable their use causing disruption to local communities and road users. The preferred access route only requires a new junction created at the Sirhowy Valley Country Park access road then almost immediately accesses the major A-road network;

- Amendments to the preferred route will not require extra private land nor the exercise of compulsory purchase powers to make the necessary amendments to it;

- The preferred route has already been used for access by HGVs so it is an established HGV route (amongst other uses) and therefore has precedent;

- Where public footpaths or other public access routes cross the access route provision will be made for their safe crossing;

- Pedestrians already have alternative footways to access Mynydd y Grug and Sirhowy Valley Country Park minimising the vehicle-ped conflicts along its route as there are alternatives;

- The preferred option will remain a shared access route throughout the duration of its use;

- No PROWs are affected along the majority of the route except at its eastern end where the turnbacks and road junction are located. It is expected localised diversion of these particular PRoWs can be enabled (see Appendix 3 for the haul route overlaid onto CCBC's Definitive Map of PRoWs);

- The preferred route ensures that visual and noise effects of regular lorry movements are minimised as the route is more remote from local housing and businesses than all alternative route options;

- The preferred access will be left in place leaving an improved access route for future use and enjoyment;

- Being a dedicated access route, it avoids congestion of local roads and therefore, ensures the programme for the project can be delivered as efficiently as possible to avoid any elongation of the project programme and the consequent affects this might have;

- The preferred option is in single ownership meaning its use can be delivered through a single landowner as can any amendments to this route;

5. Haul Route Noise Impacts

5.1 As part of the assessment of the impact of ERI's proposal this includes assessing and setting out the impacts of the noise and vibration of the haul road (alongside the main project works).

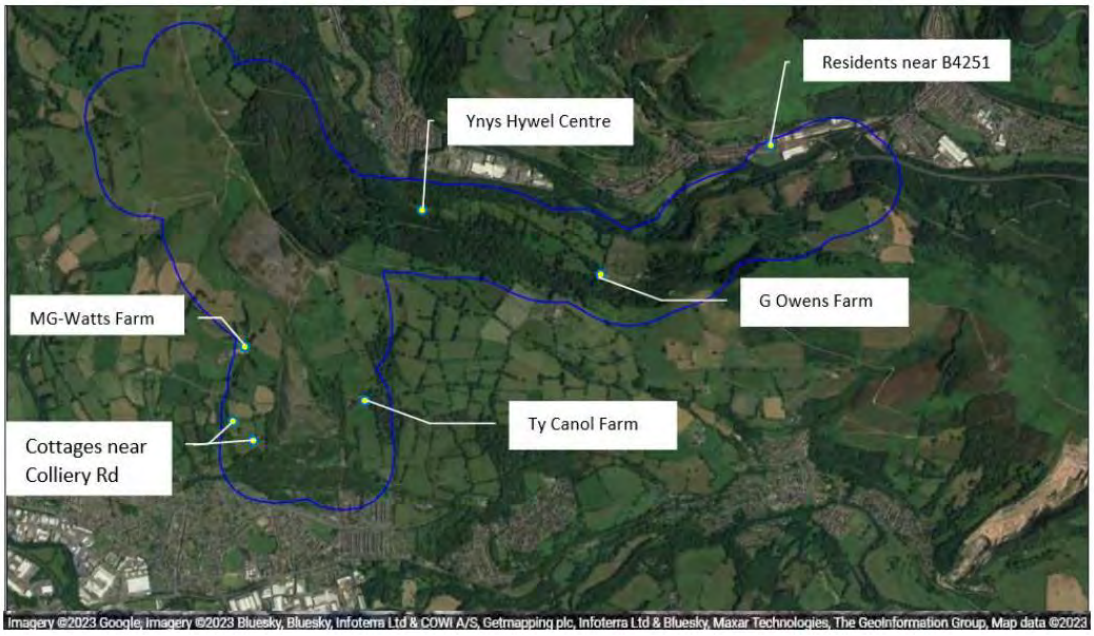
This assessment was carried out by WSP – ERI's Environmental and Planning Consultants and are contained in detail within Section 12 of the EIA.

This assessment was carried out within a 300m radius of the main project works area and the haul road.

5.2 The noise and vibration assessment started by identifying those noise receptors closest to the haul road and working area.

These noise monitoring points are shown on the extract below and this extract also shows the 300m assessment zone which is outlined blue. This extract is from Section 12.5.1 of the EIA:

Figure 12-4: Noise sensitive receptors



5.3 Then, the predicated impact of the main works and haul road noise levels was modelled for each of the noise receptors set out in 5.2 above.

A summary of the predicted noise effects on these noise receptors is shown in the extract below which is extracted from Section 12.6.2 of the EIA:

Table 12.3: Predicted construction noise levels as daily averages and highest levels

Receptor	Construction noise levels [dB(A)]		
	$L_{Aeq,1h,typical}$ Tip 1	$L_{Aeq,1h,typical}$ Tip 2	$L_{Aeq,1h,typical}$ Haul road
G Owens Farm	41	41	38
Ty Canol Farm	55	38	36
Cottages near Colliery Rd	55	40	20
MG-Watts Farm	51	39	28
Ynys Hywel Centre	41	42	38
Residents near B4251	38	38	38

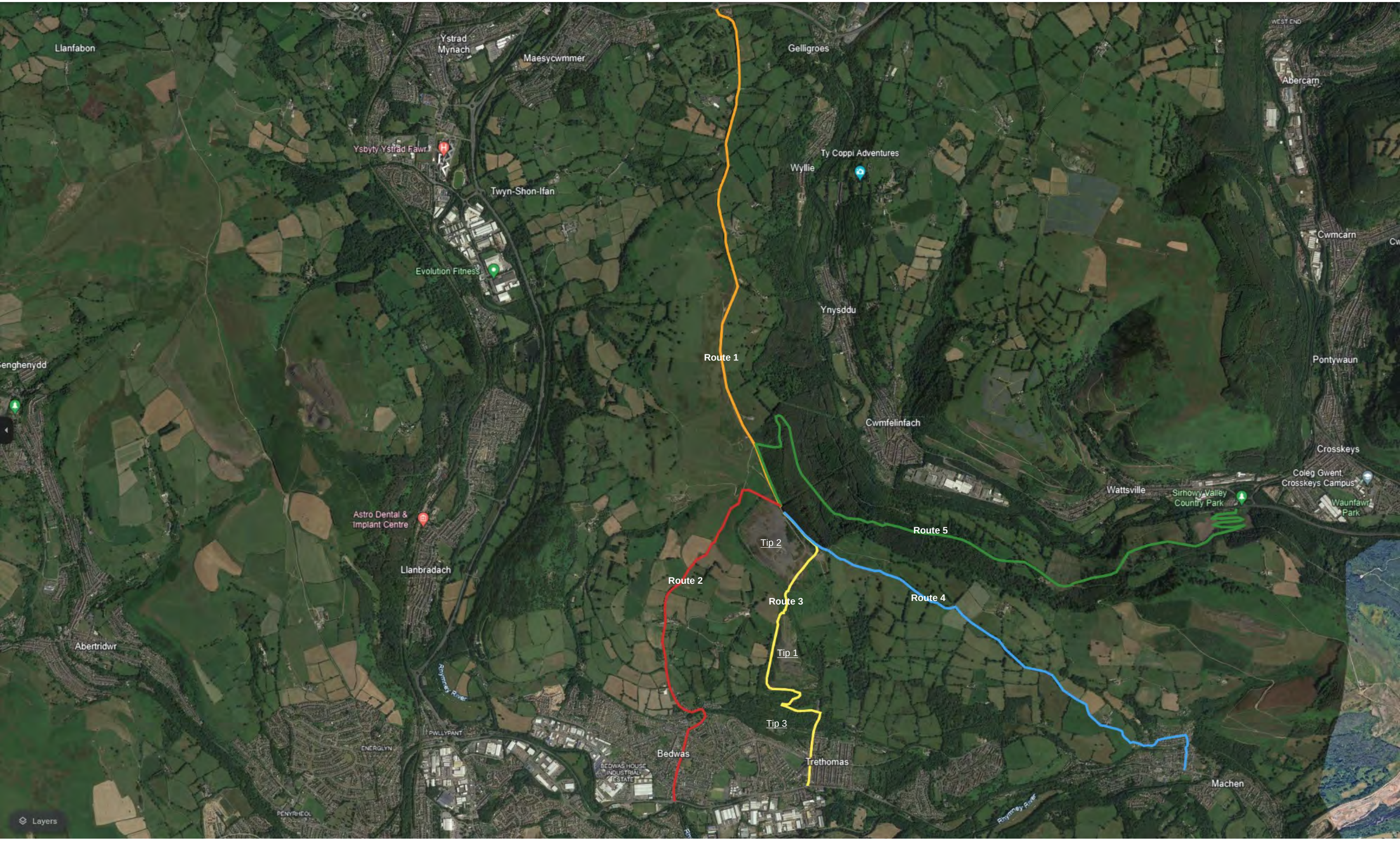
5.4 The EIA has assessed the noise impacts of the proposed haul road as increasing ambient noise levels by around 5-10db LAeq which equates to a negligible impact on the noise receptors identified.

5.5 Transport Assessment has assessed the impact of HGV movements along the haul road during Stage 1 (60 HGV movements over a 4 month period) as having a negligible effect on road capacity.

5.6 The Transport Assessment has assessed the impact of HGV movements along the haul road during Stage 2 (18 vehicles a day) as having a negligible effect on road capacity.

Appendix 1

Access Routes Overview Plan


Llanfabon
Ystrad Mynach
Maesycwmmer
Gelligroes
WEST END
Abercarn
Ysbyty Ystrad Fawr
Ty Coppi Adventures
Wyllie
Twyn-Shon-Ifan
Cwmcarn
Evolution Fitness
Ynysddu
Route 1
Pontywaun
Cwmfelinfach
Crosskeys
Coleg Gwent Crosskeys Campus
Wattsville
Sirhowy Valley Country Park
Waunfawr Park
Route 5
Tip 2
Astro Dental & Implant Centre
Llanbradach
Route 2
Route 3
Route 4
Abertridwr
Tip 1
Rhymney River
Tip 3
PWLLYPANT
ENERGLYN
Bedwas
BEDWAS HOUSE INDUSTRIAL ESTATE
Trethomas
Machen
PENYRHEOL
Layers

Appendix 2

Alternative Access routes Summary Table

Route Number	Description	Length	Issues	Comments
Route 1	Unnamed Road connecting to A472	4.3km apx.	**<u>Rights of way affected</u>** Around half of the access route shares/affects the following rights; - BTM/RBW145/1 – Restricted Byway - MAES/RBW154/1 – Restricted Byway - BTM/RBW152/1 - Restricted Byway - MAES/RBW156/1 – Restricted Byway - MAES/RBW157/1 – Restricted Byway - MAES/RBW158/1 – Restricted Byway **<u>Access Considerations</u>** • shared alongside other road users. • road width very narrow in places. • abutted by private land so widening or provision of laybys will require compulsory purchase or negotiation of land. • route connects to A472 which is significant distance from M4 network. • M4 network is not a direct route and requires passing along various other A-roads to access it. • potential for conflict with residential and commercial farming vehicles without road amendments.	**Public Rights of way** A number of Public Rights of Way ("PRoW") are directly affected by this route whereby the access route would be shared with PRoW users. **Other** Amendments to road required including some widening and passing points which would affect private landowners, require the use of compulsory purchase powers or multiple landowner negotiations. Shares roads in narrow areas with farming vehicles and a small number of residential dwellings which could cause congestion without road amendments. Only a small number of residential dwellings are directly passed along the route. Longest route to obtain access to M4 network. Route is shared with other road users and so potential to cause congestion. Longest route to access M4 road network.

Route Number	Description	Length	Issues	Comments
			• few laybys and passing points. • Direct connection of A472 roundabout. • Single carriageway for large parts of the route. • various gated access points for farm vehicles. • unmade roads at upper parts of the route. • poor road condition for many parts of the road which will likely deteriorate with use by HGVs. • May require traffic management measures to ensure safe use by HGVs. • Tree pruning and branch removal will be required. • Road amendments cannot be guaranteed without consent. • HGV routes along single carriageways are normally discouraged by planning and highway authorities.	

Route Number	Description	Length	Issues	Comments
			• Parts of road may be in private ownership and so rights of access could be withheld.	
Route 2	Unnamed road/Mountain Road/Church Street	3.4km apx.	**Rights of way affected** Around half of the access route shares/affects the following rights; - BTM/RBW132/1 – Restricted Byway - BTM/RBW131/1 – Restricted Byway - BTM/RBW130/1 – Restricted Byway - BTM/RBW59/1 – Restricted Byway **Access Considerations** • Upper parts of Mountain Road inaccessible for HGVs. • Upper parts of Mountain Road require tree pruning to enable access. • access along parts of Mountain Road and Church Street requires passing directly outside large numbers of residential properties. • shared alongside other road users. • Church Street has parked cars either side of the road increasing vehicle conflicts and affects.	**Public Rights of way** A number of PRoWs are directly affected by this route whereby the access route would be shared with PRoW users. **Other** Upper parts of Mountain Road inaccessible for HGVs and significant amendments would be required. Church Street part of route passes through densely populated residential areas. Church Street section has lots of on-street parking reducing road width and creates vehicle conflicts. Amendments to road required including some widening and passing points which would affect private landowners, require the use of compulsory purchase powers or multiple landowner negotiations. Route is shared with other road users and so potential to cause congestion.

Route Number	Description	Length	Issues	Comments
			• Residential parts of the route pass just a footpath width from the front of residential properties. • abutted by private land so widening or provision of laybys will require compulsory purchase or negotiation of land. • route connects to A468 which allows for direct connection to M4. • Swept path issues at the Church Street/Colliery Road/Mountain Road junctions. • potential for conflict with residential and commercial farming vehicles without road amendments. • few laybys and passing points. • Direct connection onto A468. • Single carriageway for large parts of the route. • various gated access points for farm vehicles. • unmade roads at upper parts of the route	Accesses A468 which provides direct link to M4.

Route Number	Description	Length	Issues	Comments
			• poor road condition for many parts of the road which will likely deteriorate with use by HGVs. • May require traffic management measures to ensure safe use by HGVs.	
Route 3	Unnamed Road/Ty Canol Lane/Colliery Road/Navigation Street	3.1km apx.	**<u>Rights of way affected</u>** Around a third of the access route shares/affects the following rights; - BTM/FP376/1 – Footpath - BTM/FP227/1 – Footpath - BTM/FP226/1 – Footpath - BTM/FP75/1 – Footpath - BTM/RBW73/2 – Restricted Byway - BTM/RBW73/1 – Restricted Byway - BTM/FP241/1 – Restricted Byway (part) **<u>Access Considerations</u>** • Tip 2 parts of the access route conflict with construction traffic and activities which may require diversions during construction activity. • Tip 1 parts of the access route conflict with construction traffic and activities which may require diversions during construction activity.	**Public Rights of way** A number of PRoWs are directly affected by this route whereby the access route would be shared with PRoW users. **Other** The parts of this access route which pass by Tip 1 and Tip 2 will likely conflict with construction traffic, so either not feasible, or will require temporary diversions to enable separation from construction traffic. Parts of the road to south of Tip 1 are in private ownership and would require landowner consent. Navigation Street part of route passes through densely populated residential areas.

Route Number	Description	Length	Issues	Comments
			• Transition between Navigation Street and Ty Canol Lane has roadside walls which reduce road width for HGVs. • shared alongside other road users. • Colliery Road sections of the route may require consent of the private road owners. • Upper part of the route may require amendments to enable its use. • access along Navigation Street requires passing directly outside large numbers of residential properties. • Ty Canol Lane is inaccessible to HGVs in part so diversion route required via private land access routes and Colliery Lane. • Navigation Street the route passes just a footpath width from the front of residential properties. • route connects to A468 which allows for direct connection to M4. • potential for conflict with residential and commercial vehicles.	Southern Section of Navigation Street has a short run of on-street parking reducing road width and creates vehicle conflicts. Amendments to road required including some widening and passing points which would affect private landowners, require the use of compulsory purchase powers or multiple landowner negotiations. Shares roads in narrow areas with farming vehicles and a small number of residential dwellings which could cause congestion without road amendments. Route is shared with other road users and so potential to cause congestion. Accesses A468 which provides direct link to M4.

Route Number	Description	Length	Issues	Comments
			• Single carriageway for large parts of the route and passing points will need to be constructed. • May require traffic management measures to ensure safe use by HGVs. • Ty Canol lane require potential tree pruning and removal to enable access by HGVs.	
Route 4	Ty Canol Lane/Sunny Bank Terrace/Mountain View/Penrhiw Lane	4.3km apx.	**<u>Rights of way affected</u>** Around a third of the access route shares/affects the following rights; - YNYS/BR262/1 – Bridleway - YNYS/RBW233/1 – Restricted Byway - BTM/RBW232/2 – Restricted Byway - BTM/RBW231/1 – Restricted Byway - BTM/RBW230/1 – Restricted Byway **<u>Access Considerations</u>** • HGVs cannot access under 2 stone bridges at the junction of Ty Canol Lane/Dranllwyn Lane due to width and height restrictions. • Due to 2 stone bridges HGVs will have to divert along Sunny Bank Terrace off Ty	**Public Rights of way** A number of PRoWs are directly affected by this route whereby the access route would be shared with PRoW users. Other There are a number of bridge structures which do not allow HGVs to apps below them. Bridge structures require a diversionary route which forces vehicles to pass directly past a larger number of residential properties. The Sunny Bank Terrace/Mountain View/Penrhiw Lane part of route passes through densely populated residential areas.

Route Number	Description	Length	Issues	Comments
			Canol Lane and swept path issues with HGVs turning this junction. • From Sunny Bank Terrace onwards the HGV route would pass through densely residential area. • From Sunny Bank Terrace onwards most residential streets include on-street parking reducing the road width and potential for vehicle conflicts. • From Sunny Bank Terrace onwards parts of this HGV route passes just a footpath width from the front of residential properties. • Loading capacity of Penrhiw Lane stone bridge has to be assessed. • Ty Canol lane is single carriageway for its entire route. • Ty Canol lane require potential tree pruning and removal to enable access by HGVs. • Ty Canol lane will require construction of laybys and widening in places which will require compulsory purchase or negotiation of land.	The Sunny Bank Terrace/Mountain View/Penrhiw Lane part of route has lots of on-street parking reducing road width and creates vehicle conflicts. Route is shared with other road users and so potential to cause congestion. Due to 2 stone bridges HGVs will have to divert along Sunny Bank Terrace off Ty Canol Lane and swept path issues with HGVs turning this junction. Accesses A468 which provides direct link to M4.

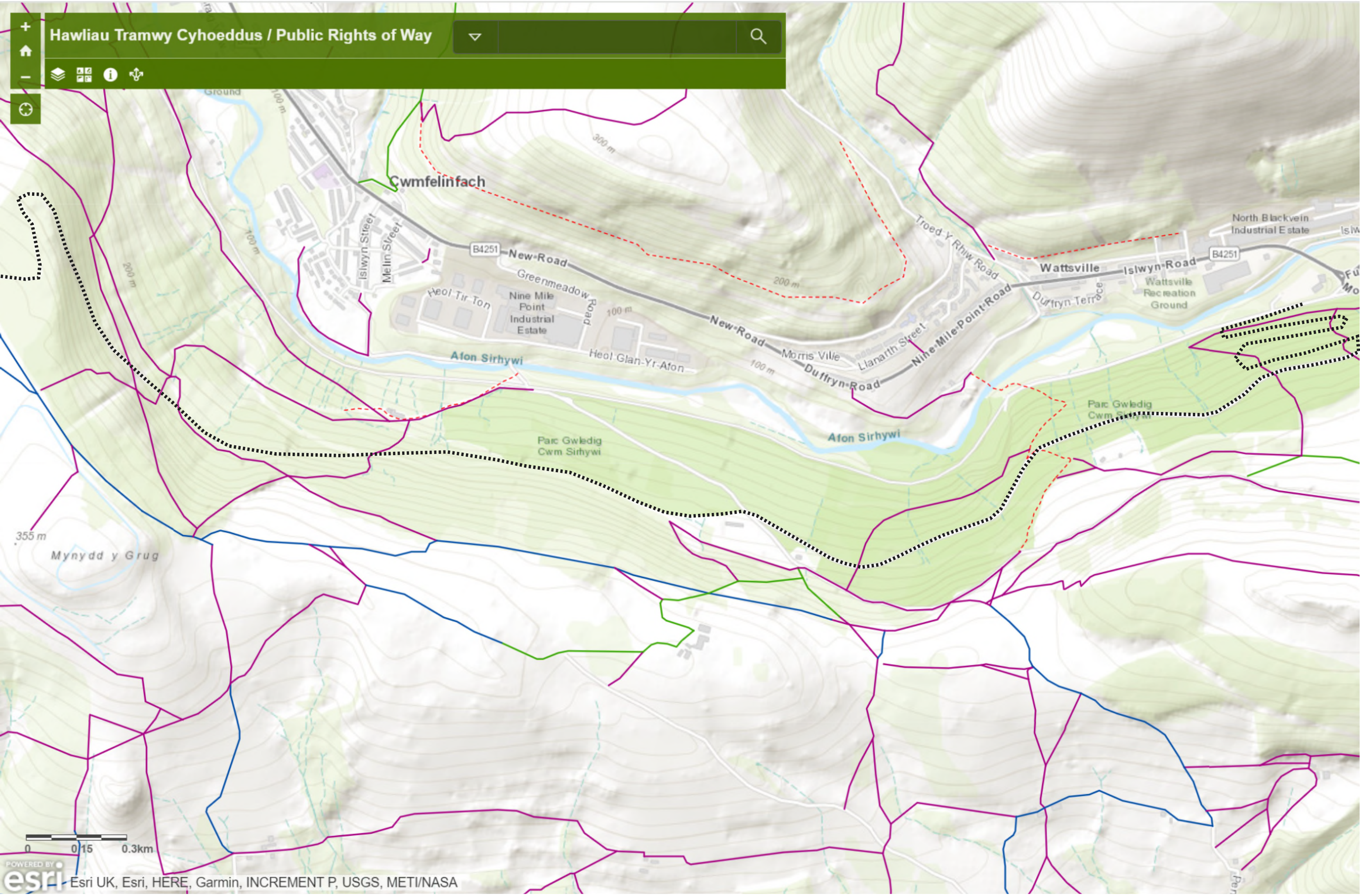
Route Number	Description	Length	Issues	Comments
			• potential for conflict with residential and commercial farming vehicles along the entirety of Ty Canol Lane. • route connects to A468 which allows for direct connection to M4. • various gated access points for farm vehicles. • unmade roads at upper parts of the route. • poor road condition for upper parts of Ty Canol Lane which will likely deteriorate with use by HGVs. • May require traffic management measures to ensure safe use by HGVs. • Loading capacity of cattle grid in upper parts of Ty Canol Lane to be assessed. • Upper parts of Ty Canol Lane may be in private ownership.	
Route 5	Forestry Track	6.5km apx.	**Rights of way affected** None of the haul route utilises or shares public rights of way with the exception of the new-to-be-created 500m of turnbacks to connect the	**Public Rights of Way** Affects the least number of PRoWs.

Route Number	Description	Length	Issues	Comments
			forestry track to Sirhowy Valley Country Park access road which affects: - YNYS/FP77/1 – Footpath - YNYS/FP74/1 – Footpath - YNYS/FP76/1 – Footpath - YNYS/FP78/1 – Footpath **Access Considerations** • Directly affects the least number of residential properties. • Does not require the use of local roads until the Junction with Sirhowy Valley Country Park access road. • HGVs are separated from other road user for the entirety of it route and then connects into major A-road network. • Previous use as a haul route albeit occasional use. • Some issues with gradient at the eastern end of route with a steep fall to Sirhowy Valley Country Park. • Requires the construction of new turnabout section of roadway.	Has the shortest stretch of road length affecting PRoWs. Will require the formation of PRoW crossing points as is crossed by such routes. Creation of turnabout access route could include separation of the PRoWs it affects reducing PRoWs directly affected to none. Is informally used as an access route for local community. **Other** Least number of residential properties directly affected of any of the route options. In single landownership so easier to deliver access rights. Closest major conurbation is circa 260-280 metres away. All road amendments within the ownership of a single owner

Route Number	Description	Length	Issues	Comments
			• Is an elevated access route with half of the route attenuated by trees the other half is felled woodland areas. • Will need laybys created along the route • Can be constructed using sustainable methods rather than placing tarmac. • Will need formation of PRoW crossings. • Will need highway authority consent for new road junction. • Is informally used as an access route to Sirhowy Valley Country Park. • Longest of all route options to enable access to A-road network.	

Appendix 3

Haul Road and PRoW Plan


Hawliau Tramwy Cyhoeddus / Public Rights of Way
Cwmfelinfach
B4251
New Road
Islwyn Street
Melin Street
Greenmeadow Road
Heol Tir Ton
Nine Mile Point Industrial Estate
Heol Glan-Yr-Afon
Afon Sirhywi
Morris Ville
Duffryn Road
Troed-Y-Rhiw Road
Llanarth Street
Nine Mile Point Road
Wattsville
Islwyn Road
Duffryn Terrace
Wattsville Recreation Ground
North Blackvein Industrial Estate
Parc Gwledig Cwm Sirhywi
355 m
Mynydd y Grug
300 m
200 m
100 m
0
0.15
0.3km
Esri UK, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA