

INTERNAL MEMORANDUM

To:	David Cross
From:	Matt Davies (Ecologist)
Ext:	5278
Memo number:	2
Date of previous memo (for Pre-App Enquiry):	04/10/2022
Date:	08/06/2023

SUBJECT: P/23/0065 | Outline application for erection of a mixed leisure development comprising Indoor Snow Centre (up to 39,200 sq m), Water park (up to 7,500 sq m), Indoor Activity Centre (up to 9,000 sq m), Outdoor Activity Centre, Hotel Accommodation (up to 418 bedrooms), Woodland Lodge accommodation (up to 30 units), car parking (up to 830 spaces) and associated earthworks, access, drainage, servicing and utilities connections/infrastructure | Land To The South West Of The A470/A4102 Roundabout At Rhydycar West Merthyr Tydfil

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DOCUMENTS SUBMITTED

1. Rhydyar West. Environmental Statement. Volume 1: Main Text. March 2023.
 - a) Chapter 8: Ecology (plus Appendices 8.1 – 8.14)
 - b) Chapter 16: Lighting (plus Appendix 16.1)

SUMMARY

This document represents an assessment of Documents 1. a) and 1. b) in relation to planning application P/23/0065 as set out above.

The proposed scheme is assessed against current wildlife legislation in force in the UK along with local and national planning policy as they relate to protected habitats and species.

A substantial amount of survey work has been undertaken onsite, however, much of this requires an update.

A range of further ecological survey work plus detailed information regarding mitigation, compensation and enhancement measures is also required before a full and final assessment of the proposed scheme and its impacts on ecology can be made.

GENERAL COMMENTS REGARDING CHAPTER 8: ECOLOGY (PLUS APPENDICES 8.1 – 8.14)

Age of ecological survey work

Appendix	Survey type	Date of most recent survey	Approximate age of most recent survey (up to the date of memo #2.)
1 + 2	Grassland Fungi	26 th November 2020 (Sturgess)	2 years, 6 months
3	Phase II (Plant Community) NVC	Between 1994 and 2005 (Bosanquet & Stevens)	18 years (based on a survey date of 01/06/2005)
4 + 5	Marsh Fritillary Butterfly	15 th September 2020	2 years, 8 months
6, 7 + 8	Invertebrates	19 th May 2021	2 years
9	Birds		
	• Breeding Bird	16 th June 2021	1 year, 11 months
	• Wintering Bird	02 nd March 2021	2 years, 3 months
	• Willow Tit	12 th March 2021	2 years, 2 month
10	Great Crested Newt	07 th June 2021	2 years
11	Bats		
	• Transect	27 th September 2021	1 year, 8 months
	• Automated	01 st October 2021	1 year, 8 months
	• Autumn Swarming	30 th September 2015	7 years, 8 months
	• Emergence/Re-entry	16 th September 2016	6 years, 8 months
	• Built Structure Inspection		
	○ Low suitability (Winter roosting)	24 th February 2016	7 years, 3 months
	○ Low suitability (Autumn roosting)	15 th September 2016	6 years, 8 months
	○ >Low suitability	12 th March 2021	2 years, 2 month

	Preliminary Ground Level Roost Assessments	May 2021	2 years, 1 month
12	Reptiles	29 th September 2021	1 year, 2 months
13	Mammals (exc Bats)		
	Dormice	10 th December 2021	1 year, 6 months
	Badger	April 2021	2 years, 2 month
	Water Vole and Otter	09 th September 2021	1 year, 8 months
14	PRF Inspection (Winter)		
	Campaign 1 trees	11 th November 2022	7 months
	Campaign 2 trees	16 th November 2022	7 months

For data, 18 months to 3 years old¹ (highlighted in red in the table above), a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

Chapter 8, Table 8.1

Is the up-to-date information about onsite habitats available? Table 8.1 refers to the survey by Bosanquet & Stevens in 2005 (included in the Appendices), but also to site-wide surveys by Bioscan since 2015, most recently in 2021 with targeted additional work in 2022, however the details are not provided.

Impacts on protected habitats and species

There is a long list of ecological receptors that are likely to be affected by the proposed development (during construction and/or in operation) with various magnitudes of impact. See below, taken from Table 8.7.

- Cwm Glo a Glyndyrys SSSI (Primary Interest Features)
- Cwm Glo a Glyndyrys SSSI (Secondary Interest Features)
- Rhydycar West SINC (# 36)
- Cwm Glo SINC (# 12)
- Ancient Woodland?
- TPO Woodland
- Bat assemblage (14 of the 16 species that breed in Wales present onsite)
- Great Crested Newt
- Reptiles
- Marsh Fritillary Butterfly
- Welsh Priority Habitats
- Welsh Priority Species
- Other notable invertebrates
- Non-designated habitats
- Other non-designated habitats

¹ Advice Note. On the Lifespan of Ecological Reports & Surveys. CIEEM. April 2019.

- Badgers

Avoidance, Mitigation, Compensation and Enhancement

Planning Policy Wales Edition 11 includes a step-wise approach to maintain and enhance biodiversity and build resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for; enhancement must be secured wherever possible

Chapter 8 states that *‘Both the location of the development within the wider landholding and the detailed positioning and extent of the Application Site have been configured through numerous design iterations in order that overlap with the designated Cwm Glo a Glyndyrys SSSI is restricted to the absolute minimum necessary.’*

It could be argued that these design iterations represent avoidance and minimisation of the adverse environmental effects of the proposed development on the SSSI. However, a similar statement is not made within Chapter 8 in relation to the Rhydycar West and Cwm Glo SINC.

Mitigation and compensation measures have been referred to in a broad sense (for example, species protection plans, improved management of the wider site, offsite compensation, Construction Environmental Management Plan etc) however, there is not sufficient detail.

There is no mention of enhancement measures within Chapter 8.

Without full and detailed information regarding mitigation, compensation and enhancement measures, the ultimate outcomes regarding protected habitats and species cannot be evaluated and this application cannot be determined.

The extensive survey work undertaken at the site has shown it to be rich in biodiversity and important for protected habitats and species with a range of levels of importance (district, national, international).

The damage to/destruction and disturbance of the SINC and SSSI sites (as a result of the proposed development) from an ecological perspective is unacceptable. Particularly with the lack of provision of any detailed mitigation, compensation or enhancement measures to date.

The brief outline provided of the principle of offsite compensation measures through better management of the wider site does not provide any confidence of its effectiveness given the mismanagement of the site to date by the owners/applicants.

The management statement for Cwm Glo a Glyndyrys SSSI (https://naturalresources.wales/media/665328/SSSI_1597_SMS_EN00192de.pdf) details the reasons the site is special and how it should be managed. This includes for instance a statement regarding grazing.

‘Grazing is very important. It allows lots of different plants to grow together, and prevents one or two species of plant from taking over the grassland, or even the grassland turning into scrub and woodland. Light grazing, preferably by cattle alone, or by a combination of horses and cattle, is the best to maintain both types of grassland. If possible, grazing should mostly be limited to between about May and September. The aim of the grazing will be to produce a sward that is about 5 – 20cm (2 – 10 inches) high at the end of the summer.’

This is an example of how the SSSI is already meant to be managed.

Information within the EclA suggests that these management practices have been relaxed in recent years. Reinstatement of management practices (for instance, such as conservation grazing) has been offered as part of the compensation package for the loss of habitat due to the development.

Whilst this reinstatement of management practices in the wider site is welcomed, it could be argued that this should happen even if the development did not take place. So, it is difficult to see the argument that this truly represents compensation for the habitat to be lost. Proper management of the SSSI should be enforced by NRW and areas over and above this should be offered for compensation purposes.

Generally speaking, regarding the loss of habitat in the SINC and the SSSI, the information and measures as stated in Box 1 below will be required.

Box 1

Quantification of the total area to be impacted must be stated with an equivalent area of effective compensation demonstrated. Subsequent monitoring to assess the success or otherwise of the mitigation, compensation and enhancement measures undertaken must be included. A management and maintenance plan for compensation areas will be required (in perpetuity). Also, details of who will fund the management and maintenance and who will be ultimately responsible for implementation.

NB it might be useful to perhaps use a version of the Biodiversity Net Gain (BNG) system (as used in England) to aid the process.

Following receipt of this information, a full assessment can be made of the extent of the adverse impact on the environment at this site. If this clearly outweighs the other material considerations then the development should be refused.

SPECIFIC COMMENTS REGARDING CHAPTER 8: ECOLOGY (PLUS APPENDICES 8.1 – 8.14)

Figure 8.2

Where are the representations of ‘wet woodland’ and ‘upland oakwood’? Do these occur within the application site?

Para 8.4.4

‘The principal interest features underpinning the SSSI designation have thus been largely avoided by virtue of the design process.’

NB The above statement is not necessarily correct as it is the association of the grassland habitats in the SSSI with woodland and heath habitat that is also important for its designation, as stated in the SSSI citation document:

*‘Cwm Glo a Glyndyrys is of special interest for its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, **‘and’ for the association of these habitats with others including woodland and heath.** It is also of special interest for its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap *Hygrocybe* spp, making it one of the best sites in Britain.’*

[Policy EnW22: Internationally and Nationally Protected Sites and Species]

² See Merthyr Tydfil County Borough Council Replacement Local Development Plan (2016 - 2031) - <https://www.merthyr.gov.uk/media/5642/replacement-ldp-written-statement-final-composite-version-140120.pdf>

‘Development likely to have an adverse effect either directly or indirectly on the conservation value of an internationally or nationally designated site, including the area, structure and function of designated features, will only be permitted where it is demonstrated that:

- 1. There is no suitable alternative to the proposed development;*
- 2. It can be demonstrated that the benefits from the development clearly outweigh the special interest of the site; and*
- 3. Appropriate compensatory measures are secured; or*
- 4. The proposal contributes to the protection, enhancement and positive management of the site.*

Development proposals likely to affect protected species will only be permitted where it is demonstrated that:

- 1. The population size, range, distribution and long-term prospects of the species will not be significantly adversely impacted;*
- 2. There is no suitable alternative to the proposed development;*
- 3. The benefits of the development clearly outweigh the adverse impacts on the protected species; and*
- 4. Appropriate, avoidance, minimisation, mitigation, compensation and enhancement measures are provided.’*

Adherence to the above criteria has not yet been demonstrated and so the application cannot be determined at this stage.

Para 8.6.1

‘While the statutory authority NRW has powers at its disposal to enforce suitable management in extremis, these are rarely used.’

Given the admission within Chapter 8 that key open grassland habitats have been reduced in extent and quality due to management neglect – this might represent a rare occurrence where NRW could and perhaps should be utilizing its powers to enforce suitable management, whether or not there is a live planning application. This should be highlighted in our consultation with NRW.

In addition, as the landowner has admitted to neglect (in terms of management of the SSSI to date), there is no real guarantee or safeguard and no real confidence that the wider landholding (representing both SSSI and non-SSSI resources) or offsite compensation areas will be managed appropriately post-development.

Para 8.5.16

*‘By far the larger impact will be on the Rhydycar West SINC, with perhaps **25%** of the total designated area being lost to the development. By contrast, the impact on the Cwm Glo SINC would be slight, with perhaps 0.2ha of the total 127.1ha site being lost (0.16%). Considered cumulatively these losses would be of **moderate to major magnitude and a significant adverse effect at all scales up to Regional/County level, commensurate with the geographical frame of reference at which such sites are valued.**’*

[Policy EnW3³: Regionally Important Geological Sites, Sites of Importance for Nature Conservation, Local Nature Reserves and Priority Habitats and Species]

³ See Merthyr Tydfil County Borough Council Replacement Local Development Plan (2016 - 2031) - <https://www.merthyr.gov.uk/media/5642/replacement-ldp-written-statement-final-composite-version-140120.pdf>

‘Development proposals likely to have an adverse impact on Regionally Important Geological Sites, Sites of Importance for Nature Conservation, Local Nature Reserves, or Priority Habitats and Species will only be permitted where it can be demonstrated that:

- 1. The need for the development clearly outweighs the conservation value of the site;*
- 2. Adverse impacts on nature conservation features or geological features can be avoided;*
- 3. Appropriate and proportionate mitigation and compensation measures can be provided; and*
- 4. The development maintains and where possible enhances biodiversity and geodiversity interests.’*

Adherence to the above criteria has not yet been demonstrated and so the application cannot be determined at this stage. It is clear that point 2 is not possible to deliver.

Para 8.1.10

‘The precise magnitude of such offset, and whether it delivers an outcome approaching or exceeding neutral in terms of overall net change, is contingent on the precise details of the off-site measures that will be submitted in support of the application in due course.’

Section 6 of the Environment (Wales) Act 2016 calls for maintenance and enhancement of biodiversity. The above text is vague in terms of the proposed off-site measures, there is simply not enough detail to allow meaningful comments to be made in response. Without this detail, as previously stated, the application cannot be determined at this stage. To maintain and enhance biodiversity, net outcomes must be positive, therefore ‘... an outcome approaching or exceeding neutral in terms of overall net change’ will be insufficient.

Para 8.6.5

*‘Once settled, the detail of the on and off-site compensation package will be fed into the application process as appropriate, for example as **Further Environmental Information**, along with quantitative measures of the balance of loss versus gain in terms of biodiversity.’*

This information is required for consideration *prior to determination* of this planning application.

Para 8.6.6

‘The detail of these various wider landholding and off-site measures will be secured by a Compensation and Habitat Management Plan (or similar appropriate vehicle) secured via a pre-commencement condition on the planning consent.’

The Compensation and Habitat Management Plan (or similar appropriate vehicle) is required for consideration *prior to determination* of any planning application.

Para 8.6.6

‘These measures will be fully detailed via a Construction-phase Environment Management Plan (or similar) secured via a pre-commencement condition on the planning consent.’

The Construction-phase Environment Management Plan is required for consideration *prior to determination* of any planning application.

Appendices 1 & 2 (Grassland Fungi Surveys 2015 & 2020)

Latest survey data from 26 November 2020, so approx. 2 years and 6 months old. As previously stated, for data that is 18 months to 3 years old⁴, a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

The 2020 document reports a decline in numbers of waxcap species observed and concludes that the likely cause is the reduction in grazing at Cwm Glo. The document recommends a series of management solutions to address the waxcap decline, including a range of grazing measures as well as scrub control measures. Monitoring of the site to assess the response to the recommended management is required.

The document also suggests research using soil DNA to investigate the longevity of waxcap mycelium in areas no longer suitable for fungi fruiting. This will be used where appropriate.

Along with an update to the survey data and report, an amended document must be supplied that includes a full discussion of the impacts of the development on these waxcap assemblages and provides detailed mitigation, compensation (translocation where possible) and enhancement measures. Grassland Fungi is a specialist field, so it will be useful for the ecologist that undertook the baseline surveys to discuss the results in the context of the latest development plans and offer their suggestions for mitigation, compensation and enhancement measures. NB although touched upon within the EclA report, more detail is required – to include, for example, a plan overlaying the redline boundary of the development onto the waxcap distribution figure. This will help to visualise the impacts.

The requirements from Box 1 will also be required here.

Appendix 3 (Vegetation Survey 2005)

This report from 2005 and the data within it is substantially out of date.

The EclA report refers to site-wide surveys by Bioscan since 2015, most recently in 2021 with targeted additional work in 2022, however the details are not provided.

The results of the most recent 2021 survey are therefore required, with detailed interpretation within the context of the current planning application and the likely impacts on the habitat. The document must also provide detailed mitigation, compensation (translocation where possible) and enhancement measures. For example, a plan overlaying the redline boundary of the development onto a habitat plan would help to visualise the impacts.

The requirements from Box 1 will also be required here.

Appendices 4 & 5 (Marsh Fritillary Larval Web Surveys 2015 & 2020)

Latest survey data from 15 September 2020, so approx. 2 Years and 8 months old. As previously stated, for data that is 18 months to 3 years old², a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The

⁴ Advice Note. On the Lifespan of Ecological Reports & Surveys. CIEEM. April 2019.

ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

Along with an update to the survey data and report, an amended document must be supplied that includes a full discussion of the impacts of the development on the marsh fritillary butterfly (as set out in comments supplied by NRW) and provides detailed mitigation, compensation and enhancement measures. It will be useful for the ecologist that undertook the baseline surveys to discuss the results in the context of the latest development plans within their report and offer their suggestions for mitigation, compensation and enhancement measures. A plan overlaying the redline boundary of the development onto a figure with the distribution of both devil's bit scabious and marsh fritillary butterfly would help to visualise the impacts.

The requirements from Box 1 will also be required here.

NB see comments from NRW regarding marsh fritillary butterfly (including the reference to screening through a Habitats Regulations Assessment).

Appendices 6, 7 & 8 (Invertebrate Surveys 2015, 2018, 2021)

The reports conclude that the survey area is of *County Significance* for Invertebrates.

Latest survey data is from 19 May 2021, so approx. 2 years old. As previously stated, for data that is 18 months to 3 years old, a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

Along with an update to the survey data and report, an amended document must be supplied that includes a full discussion of the impacts of the development on invertebrates and provides specific detailed mitigation, compensation and enhancement measures. Invertebrates are a specialist field, so it will be useful for the ecologist that undertook the latest baseline surveys to discuss the results in the context of the latest development plans and offer their suggestions for mitigation, compensation and enhancement measures. NB although touched upon within the EclA report, more detail is required.

The requirements from Box 1 will also be required here.

Appendix 9 (Bird Surveys 2015-2021)

Latest survey data for Breeding Birds, Wintering Birds and Willow Tit is all more than 18 months old. As previously stated, for data that is 18 months to 3 years old, a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and

- The appropriate scope, timing and methods for the update surveys

An amended document must be supplied that includes a full discussion of the impacts of the development on birds and provides specific detailed mitigation, compensation and enhancement measures. NB although touched upon within the EclA report, more detail is required. A plan overlaying the redline boundary of the development onto a figure with the distribution suitable breeding bird habitat would help to visualise the impacts.

The requirements from Box 1 will also be required here.

NB see also comments from NRW regarding birds. The specified further information required by NRW will also be required to enable full assessment by MTCBC.

Appendix 10 (Great Crested Newt Surveys 2015-2021)

Latest survey data from 07 June 2021, so approx. 2 years old. As previously stated, for data that is 18 months to 3 years old, a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

An amended document must be supplied that includes a full discussion of the impacts of the development on great crested newt and provides specific detailed mitigation, compensation and enhancement measures. NB although touched upon within the EclA report, more detail is required. A plan overlaying the redline boundary of the development onto a figure with the distribution of great crested newts (e.g., ponds and suitable terrestrial habitat) would help to visualise the impacts.

The requirements from Box 1 will also be required here.

NB see also comments from NRW regarding great crested newt. The specified further information required by NRW will also be required to enable full assessment and determination of the application by MTCBC.

Appendix 11 (Bat Surveys 2015-2021)

Latest survey data for all elements in the suite of bat survey work undertaken is all more than 18 months old, with some more than 3 years old. As previously stated, for data that is 18 months to 3 years old, a professional ecologist will need to undertake a site visit and may also need to update desk study information and then review the validity of the report. The ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:

- The validity of the report;
- If surveys need to be updated; and
- The appropriate scope, timing and methods for the update surveys

For data that is more than 3 years old, the report is unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by a professional ecologist).

An amended document must be supplied that includes a full discussion of the impacts of the development on bats and provides specific detailed mitigation, compensation and enhancement

measures. NB although touched upon within the EclA report, more detail is required. A plan overlaying the redline boundary of the development onto a figure with the distribution suitable bats roosts and activity would help to visualise the impacts.

The requirements from Box 1 will also be required here.

Bat Surveys

Submitted document:

- o **Cwm Glo a Glyndyrys, Merthyr Tydfil. Species Survey Report: Bats. Report No. E1835-BAT-R1. February 2022. Bioscan (UK) Ltd.**

The site has high suitability for foraging and commuting bats (BCT Bat Surveys for Professional Ecologists. Good Practice Guidelines, Collins 2016). See below for specific guidance provided regarding the number of bat activity surveys recommended to achieve a reasonable survey effort in relation to high habitat suitability:

Transect/spot count/timed search surveys: Up to two survey visits per month (April to October) in appropriate weather conditions for bats. At least one of the surveys should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period.

AND

Automated/static bat detector surveys: Three locations per transect, data to be collected on five consecutive nights per month (April to October) in appropriate weather conditions for bats.

Bat Transect Surveys 2015-2018

2015 – four transects walked in May (x1 visit), June (x1 visit) and July (x1 visit). NB only Transect 4 was within the redline boundary for the application.

2016 – two transects walked in August (x2 visits), September (x2 visits). NB only Transect 2 was within the redline boundary for the application.

2018 – two transects walked in April (x1 visit), May (x1 visit), June (x2 visits), July (x2 visits), August (x3 visits), September (x2 visits). NB only Transect 2 within the redline boundary for the application.

Survey guidelines in terms of transect surveys not adhered to and all above surveys are out-of-date.

2015-2018 surveys – species identified – common pipistrelle, soprano pipistrelle, *Myotis sp*, Barbastelle, Whiskered/Alcathoe/Brandt's bat, Nathusius' pipistrelle, noctule, brown long-eared bat,

Notable bat species recorded Barbastelle, Nathusius' pipistrelle.

Bat Transect Surveys 2021

2021 – two transects walked in April (x2 visits), May (x2 visits), June (x2 visits), July (x2 visits), August (x2 visits), September (x2 visits). NB both transects within the redline boundary for the application.

2021 surveys – species identified – common pipistrelle, soprano pipistrelle, Daubenton's bat, *Myotis sp*, Whiskered/Alcathoe/Brandt's bat, Nathusius' pipistrelle, noctule, brown long-eared bat, lesser horseshoe bat, serotine

Notable bat species recorded lesser horseshoe bat and Nathusius' pipistrelle.

Automated Bat Surveys, 2015-2021 (page 11-15)

Species – common pip, soprano pip, Nathusius' pip, noctule, serotine, barbastelle, brown long-eared bat, greater horseshoe bat, Natterer's bat, *Myotis* sp, WAB, Daubenton's bat, lesser horseshoe bat.

Notable bat species recorded: Nathusius' pipistrelle, barbastelle, lesser horseshoe bat, greater horseshoe bat.

The results of the Transect Surveys and the Automated Bat Surveys must inform any proposed lighting onsite, which must be appropriate to allow light sensitive species to through and around the proposed development site.

Built structures

1. Autumn swarming surveys, 2015

Lesser horseshoe bat roost noted in structure B12 (September 2015).

Species detected – common pip, soprano pip, Nathusius' pip, noctule, Long-eared, *Myotis* sp, Daubenton's bat, Greater horseshoe, lesser horseshoe, WAB, Natterer's bat. Also, social calls detected.

2. Emergence / re-entry surveys, 2016

Species detected – sop pip, common pip, probable Daubenton's bat.

3. Built Structure Inspections

2016 (Winter and Autumn roosting)

2021 (re-inspected for evidence of hibernating bats only)

1, 2 and 3 above are either out-of-date and/or don't follow the BCT Bat Surveys for Professional Ecologists. Good Practice Guidelines (Collins 2016). Up-to-date appropriate survey work (depending on the suitability for roosting bats) of the built structures is required.

Trees

Preliminary Ground Level Roost Assessments (PGLRA) undertaken in 2021 'were not comprehensive'. Only trees within the north-west area (location of in particular the ski slope) were included. Trees outside this area have not been assessed.

All trees to be impacted by the development must be subject to a PGLRA.

All trees found to have moderate or high suitability for roosting bats must be subject to PRF Inspection Surveys, presence or absence surveys or roost characterisation surveys.

NB - within the Tree Survey and Works Schedule (April 2022) there are trees marked 'fell to implement scheme' and trees marked to be felled due to poor condition. It is expected as a minimum that all these trees would be subject to the surveys as set out above.

Regarding those trees marked for removal *due to condition* (rather than to implement scheme). These trees must remain in situ if they are outside of the boundary of the scheme and do not pose a danger to the public? If they need to be removed for health and safety reasons, these trees should only be subject to the minimum level of works that would make them safe, for example, dangerous limbs removed with standing deadwood to remain.

A total of 99 trees underwent 'climb and inspect surveys' between 7th and 16th November 2023 (during the Autumn flux period).

A short letter-style report has been presented in Appendix 14 in conjunction with a slew of unlabelled tables. The letter style report contends that, of some 99 trees inspected, only 54 were judged to be superficially suitable to be occupied by bats. Of these 54 trees only one was found to be a roost for an individual Daubenton's bat.

Do the 99 trees represent all the trees to be impacted by the proposed development?

Grid references are provided within the many associated tables however a plan has not been submitted showing where these trees are in relation to the proposed development.

This survey work has generated results for the autumn-flux period, but no other (winter, spring-flux, pregnancy, nursery, mating). More data is clearly required for these other time periods.

Bat detectors & bat data analysis

- Could the spec of the detectors used 'specific to each year survey work was undertaken' be included?
- What version of Kaleidoscope was used in the analysis?

NB see also comments from NRW regarding bats (including, for example, the requirement for a site-wide Bat Conservation Plan). The specified further information required by NRW will also be required to enable full assessment by MTCBC.

Appendix 12 (Reptile Surveys 2021)

An amended document must be supplied that includes a full discussion of the impacts of the development on reptiles and provides detailed mitigation, compensation and enhancement measures. The total area to be impacted must be quoted and monitoring to assess the success or otherwise of the measures undertaken must be included.

Appendix 12 (Mammals (excluding bats) 2015-2021)

Common dormice

1. Dormouse surveys were undertaken in 2015 and 2021. Both surveys deployed tubes from May to December. This would therefore score an acceptable 24 on the index of probability for detecting absence⁵. However, it seems that the tubes were only checked four times during the 2015 season and three times during the 2021 season. Best practice dictates that tubes are checked every month over the survey season as dormouse nests are often destroyed by other small mammals (e.g., woodmice).
2. In the past, NRW have asked for boxes to be deployed rather than tubes in a woodland setting.

NRW have made no comment regarding the methodology of the dormouse surveys as undertaken, however, further comments and reaction from NRW should be sought regarding the points made above.

Given the limitations outlined in points 1 and 2, I would expect the precautionary principle to be followed and a robust method statement for habitat removal to be produced with consideration for the possible presence of dormice onsite. Any habitat suitable for dormice will be compensated for. A plan overlaying the redline boundary of the development onto a figure with the distribution suitable dormouse habitat would help to visualise the impacts.

⁵ Bright, P., Morris, P. and Mitchell-Jones, T. (2006) The Dormouse Conservation Handbook, Second Edition. English Nature.

The requirements from Box 1 will also be required here – as part of the precautionary approach.

Badger

The Appendix does not state the course of action to be undertaken in the event that active badger setts are found during site clearance in those areas that were not able to be surveyed (e.g., within the east-facing slopes of the former Glyndyrys Pit tips).

Water vole and Otter

Any waterways within the development site that would be impacted by the scheme will be subject to a precautionary otter (and water vole) survey/check prior to any works that may affect local otters and/or water voles immediately prior to works. Any works that could impact waterways will be specified and an appropriate method statement produced with consideration for otters and water voles.

NB see also comments from NRW regarding watercourses in relation to otters and water vole. The specified further information required by NRW will also be required to enable full assessment by MTCBC.

Polecat

Mitigation, compensation and enhancement measures regarding polecat will be required.

COMMENTS REGARDING CHAPTER 16: LIGHTING (PLUS APPENDIX 16.1)

Submitted document:

- Rhydyar West, Merthyr Tydfil, CF48 1RW. Light Spillage Assessment. Issue 3. 4th February 2022. Tetra Tech.

Guidelines

This document must reference and take account of the following BCT/ILP guidance:

<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

Proposed dark areas/routes/corridors and any proposed onsite lighting must conform to these guidelines.

Proposed dark areas/routes/corridors

Executive Summary: *‘Following the installation of an appropriate lighting scheme as detailed in this report, the risk of the proposed development resulting in significant exceedances of 1 lux along potential bat foraging/commuting routes is considered to be negligible.’*

The BCT/ILP guidelines state *‘where ‘complete darkness’ on a feature or buffer is required, it may be appropriate to consider this to be where illuminance is below 0.2 lux on the horizontal plane and below 0.4 lux on the vertical plane. These figures are still lower than what may be expected on a moonlit night and are in line with research findings for the illuminance found at hedgerows used by lesser horseshoe bats, a species well known for its light averse behaviour (Stone, 2012)’*

These are the criteria that should be quoted within the document for dark areas/routes/corridors. [NB it is however noted that Table 5.2 of the Light Spillage Assessment Document shows the predicted model illuminance ‘at the chosen Ecological Receptors’ to be no higher than 0.05lux.]

Ecological receptors

See below for an overlay of Figures 4.3 (Modelled Ecological Receptors) and 5.1 (Indicative External Lighting Layout)

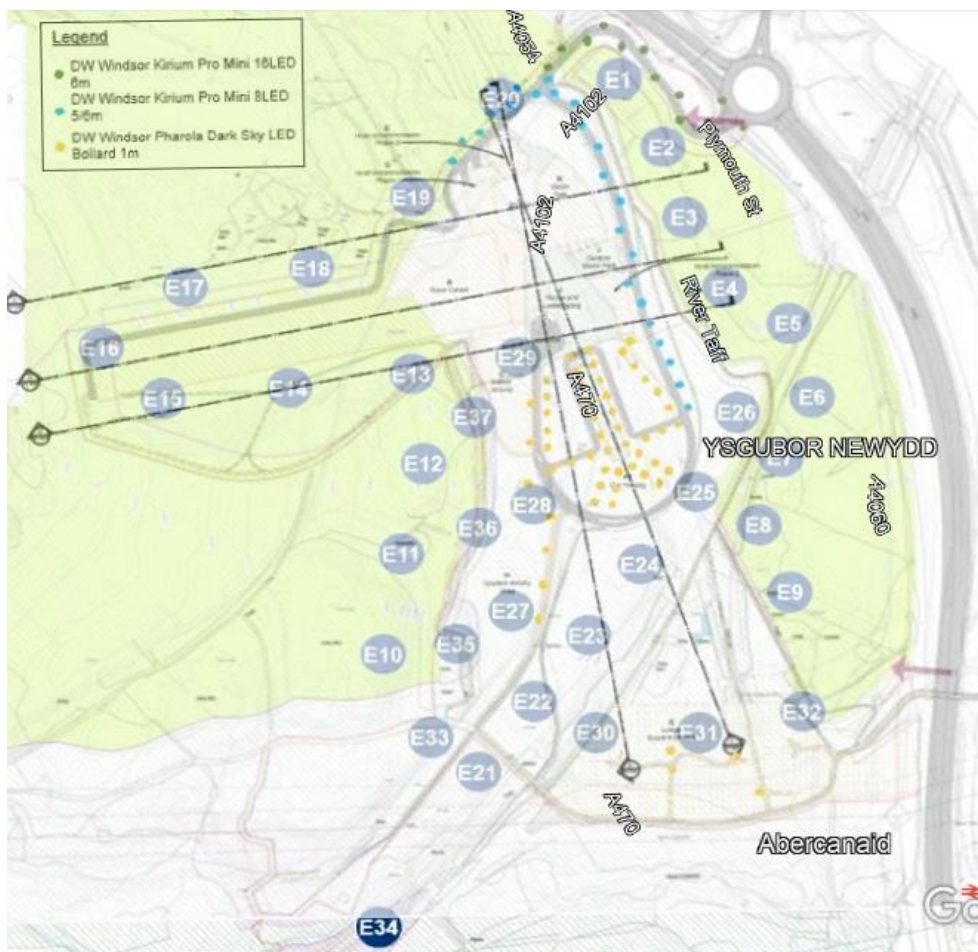
Table 5.2, pages 25-26 shows the Ecological Receptor Assessment Results. NB there is no unit specified within this table – I assume the unit is lux? This needs to be explicit.

The highest predicted model illuminance of the chosen Ecological Receptors is shown at E3 (0.05lux), but for example, the predicted model illuminance at E20 and E28 is lower at 0.01lux and 0.02lux respectively. This seems counterintuitive, as E20 and E28 are closer to proposed luminaires than E3? To further illustrate this point, the two Ecological Receptors either side of E3 (E2 and E4) are in similar positions, but both have lower predicted model illuminance (0.01lux and 0.02 lux respectively).

Also, E20 seems to be very close to a line of lighting columns, yet the illuminance level is very low (0.01lux). Is this correct?

In addition, Table 4.2 shows the baseline lux levels and, for example, location 1 (L1) has an illuminance level of 0.05lux (facing east). L1 is in the same position as E20, but the 'baseline' illuminance level (pre-lighting) is higher than the predicted model illuminance (post-lighting)?

Can this be explained please?



Proposed onsite lighting

All luminaires will conform to the BCT/ILP guidelines (as previously referred to) – see the list of *Appropriate luminaire specifications* on pages 18 and 19. For example, the luminaires must be LED with a colour temperature of <2700K and peak wavelengths of more than 550nm. Specifications that demonstrate these criteria must be supplied.

Internal lighting

Executive Summary: *‘... staff and guests should be encouraged to have curtains drawn or blinds closed within the hotel bedrooms at night, thus further reducing the effects of internal lighting on the external environment.’*

Reliance on human behaviour in regard to drawing curtains or closing blinds in order to reduce internal light spill externally is not adequate.

The BCT/ILP guidelines state: *‘... low transmission glazing treatments may be a suitable option in achieving reduced illuminance targets. Products available include retrofit window films and factory-tinted glazing. ‘Smart glass’, which can be set to automatically obscure on a timer during the hours of darkness, and automatic blinds can also be used but their longevity depends on regular maintenance and successful routine operation by the occupant, and should not be solely relied upon. Depending on the height of the building and windows, and therefore predicted light spill, such glazing treatments may not be required on all storeys. This effect can be more accurately determined by a lighting professional.’*

These extra measures will be required.

And *‘The other internal amenity areas, such as restaurants, will be located at lower levels where light spillage is kept to a minimum. A further detailed lighting assessment within these areas **would** include an internal lighting design plan, focusing on avoidance of further light spillage.’*

Is there another document - an internal lighting design plan?

The BCT/ILP guidance includes further options for internal lighting mitigation, e.g., light fittings recessed into ceiling, balconies or other barriers as light interceptors, light fittings set back into room etc).

Have measures such as this been incorporated?

Other possible light sources

NB the completed proposed development when operational would also introduce artificial light in the form of car headlights and possibly the torches of residents walking to and from their woodland accommodation. These impact of these light sources need also to be assessed with avoidance and mitigation measures added into the proposal for consideration.

Lighting operation

2.3.2 Best Practice Design, page 10: *‘Where possible, lighting will be controlled via Central Management System (CMS) time and light level sensors with controls capable of being adjusted and remotely set to adapt to local needs as required.’*

When will the lights be operational? Full details of how the CMS is proposed to operate are needed.

Other (plans)

Horizontal and vertical illuminance plans are required showing light levels in relation to new and retained habitats and demonstrating dark routes not only around, but across the site.

The plans must also be shown in relation to the transect survey heat maps to better relate the dark areas to the known bat activity across the site.

Can Figure 5.3 be redrawn as a contour map of the illuminance levels?

Species impacted by Artificial Light At Night (ALAN)

It is well documented that artificial light at night (ALAN) has impacts both within and beyond the lit area on a range of fauna, not only bats, otters and dormice, but also, for example, on birds and invertebrates. See below for just a small selection of the available research.

<https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.14373>

<https://royalsocietypublishing.org/doi/full/10.1098/rsbl.2022.0281>

<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.3994>

<https://royalsocietypublishing.org/doi/abs/10.1098/rspb.2012.3017>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6448770/>

<https://www.nature.com/articles/s41598-020-68667-y>

The impacts of the introduction of ALAN into a currently dark site need to be assessed therefore not just in relation to local bat species, but also to the other species and groups of species referred to above. Avoidance and mitigation measures will need to be added to the proposal for consideration.

CONCLUSIONS

Taking into consideration the ecological information provided within the Environmental Statement, the negative impacts on protected habitats and species resulting from the proposed development are unacceptable.

Particularly given the lack of provision of any detailed mitigation, compensation or enhancement measures.

PPW 11 – ‘... where the adverse effect on the environment clearly outweighs other material considerations, the development should be refused.’

On the basis of the information provided to date, the application should be refused.

NB further information has been requested within this response and by NRW and a further assessment can be made following its receipt.