

INTERNAL MEMORANDUM

To: Kate Glover
From: Matt Davies (Ecologist)
Ext: 5278

Memo number: 1

Date of previous memo: -

Date: 29/08/2024

SUBJECT: P/24/0191 | Construction of new synthetic pitch and erection of associated fences, barriers and storage container. Erection of flood lighting around new synthetic pitch and existing running track. | Afon Taf High School Yew Street Troedyrhiw Merthyr Tydfil CF48 4ED

SITE, HABITAT AND POSSIBLE IMPACTS

The running track, and proposed position of the 3G sports pitch, is adjacent to the wooded river, also a SINC (Afon Taf). There are also nearby Ancient Semi Natural Woodland and Restored Ancient Woodland sites, along with other valuable habitat.

Therefore, there are likely to be impacts, for example, due to:

- o Artificial Light At Night (ALAN) – impacts on bats as well as other species (e.g., otter, invertebrates, birds), and
- o Removal of grassland habitat.

RELEVANT DOCUMENTS RELATED TO ECOLOGY

1. Afon Taf High School, Merthyr Tydfil. Preliminary Ecological Appraisal Report Update by Wildwood Ecology Ltd. Document Ref: WWE24118 PEA Update. Dated 28/06/2024.
2. Afon Taf High School, Merthyr Tydfil. Green Infrastructure Statement by Wildwood Ecology Ltd. Document Ref: WWE24118 GIS. Dated 02/08/2024.
3. Afon Taf. Proposed floodlighting. Project No. 7497. Drawing No. HLS7497. By Halliday Lighting. Dated 27/02/2024.
4. Afon Taf High School, Merthyr Tydfil. Preliminary Ecological Appraisal Report Update by Wildwood Ecology Ltd. Document Ref: WWE22004 PEA_DRAFT. Dated 16/03/2022.

COMMENTS

Document 1

- o Page iii states – “This report will remain valid for a maximum period of 18 months from the date of the last survey - i.e. until 18/12/2024.”

This would make the last survey date 18/06/2023? This seems incorrect. Please could this be amended?

- o There is ambiguity in the report regarding the exact nature of the development, for example, page 2, para 1.7 – “Should the floodlighting around the athletics track be committed to ...”.

The application form describes the scheme as “NEW SYNTHETIC PITCH. FENCES, BARRIERS AND STORAGE CONTAINER WITH ASSOCIATED FLOOD LIGHTS TO PITCH AND ADJACENT TRACK”. So, floodlighting is proposed for both the athletics track and the MUGA. The ecological report and its recommendations must therefore be re-written in the context of these specific development proposals.

- o Page 2, Data collected, para 1.8 – a data search was not undertaken. NB Pre-App comments from the LPA ecologist stated that data could be supplied to the commissioned ecologist given this is a Council-led scheme. This can still be supplied and should be included.
- o Page 3, para 1.12 – *“This PEA update can be used as a scoping report, but unless it can be determined that the project would have no significant ecological effects, no mitigation is required and no further surveys are necessary, the PEA will need to be superseded by an EclA report prior to submission.”*

In the context of the above, and given that Document 1 outlines both adverse impacts and mitigation measures, should the report be presented as an EclA as stated?

- o Page 4, para 2.3. The statement regarding the area near the site is true, however, the site itself and the linked habitats to the south are currently unlit. This links into the comments below regarding the Proposed floodlighting plan and baseline levels of light (Document 3).
- o Page 5, Table 2 – how do the habitats described here relate to the habitat plan in Appendix II? The table uses the UK Habitat Classification system, but the survey methods outlined in Appendix I and the plan in Appendix II relate to Phase 1 habitats survey system? The approach must be consistent.
- o Page 7, para 3.5 – *“It is recommended that any habitat loss is compensated by native and wildlife-friendly planting in the wildlife area to the south of the MUGA.”* Full details of this compensation must be provided.
- o Page 7, para 3.7 – *“The site is surrounded by a wire mesh security fence which presents significant barrier for badgers to gain access to the site.”* NB are there hedgehog-friendly gaps in this fence line? If not, these should be added as an overall enhancement for the site.
- o Page 8, para 3.12 – *“Current proposals indicate that there will be new external and internal lighting ...”*. Question, where will the *internal* lighting be?
- o Page 8, para 3.14. This describes the bird species observed and the likely suitable habitat nearby, but does not detail the possible impacts (e.g., from artificial light at night).
- o Page 9, para 3.26 – *“The woodland edges to the west and railway lines to the east have suitability for reptiles, but the installation of lighting will be confined to the modified grassland and hardstanding areas, which are unsuitable for reptiles.”*

Question – does the “g3c – other neutral grassland” referred to in Table 2 (page 5) have suitability for reptiles. If so, will this not be illuminated? Similarly, the habitat to the south of the MUGA as referred to on page 11, para 4.5 (*“There is a grassland and wildlife area to the south-east of the proposed works area. This is owned by the school and is currently left wild to grow naturally, with the exception of narrow paths cut through the area ...”*)?

- o NB A lighting plan will be required regardless of when the lighting will be in use. Other species, aside from bats (for example birds, invertebrates, fish), are impacted by artificial light at night including those that are winter-active (including bats on mild winter nights when insects are active). In addition, the trees to the west have the potential suitability for hibernating bats.
- o The proposed enhancement measures suggested are *“the installation of hibernacula for reptiles, invertebrates and small mammals. The creation of bee hotels and potentially bird nesting boxes on poles.”* Full details of these measures are required.
- o The report explores enhancement, but does not set out mitigation or compensation for the loss of grassland habitat, albeit highly managed modified grassland.
- o Appendix II shows at least x9 trees target noted with suitability for roosting bats. Question – were the trees further to the south, along the western boundary to the position of the proposed MUGA surveyed? If not, this will be required.

- o The new information regarding proposed onsite lighting in Document 3 shows that the western boundary habitat, including the river corridor, will be highly illuminated. Based on this, any bat roosts present may be negatively impacted. Further bat survey work is therefore required. NB it must be borne in mind that Document 3 requires updating as it only includes the proposed lighting for the athletics track and not the MUGA.

Document 4

- o Page 14, para 4.21 – *“illumination of hibernation sites should be avoided during the hibernation period.”*

Page 14. Para 4.22 – *“Several trees immediately offsite to the west had suitable features for roosting bats (see Appendix I TN#1), including crevices and dense ivy cover. The number of trees and their associated suitability for roosting bats is unconfirmed at this stage, as it was not possible to access all offsite woodland.”*

Given the proposed floodlighting and lux levels along the trees at the western boundary, further information regarding possible bat roosts. The report stated that the number of trees with suitability for roosting bats was unconfirmed. In addition, it is unclear whether there has been any investigation of the trees to the west of the proposed MUGA (now included in the scheme) – see also comment re Document 1 above.

- o Other species, aside from bats (for example birds, invertebrates, fish), are impacted by artificial light at night including those that are winter-active (including bats on mild winter nights when insects are active). This is not fully explored/considered/stated within Document 4. Amendments are required, either to Document 1 or Document 4 (or both).

Document 2

- o Page 14, Table 2 –

*“Compensation is **hoped to be provided** by pending future school projects. By enhancing the “wildlife area” to the south of the site. This small area of the site is owned by the school and is managed and maintained as a wildlife area with dedicated paths through the site that provides an opportunity to enhance the cultural and supporting services of the site.*

The compensation will take the form of additional planting of fruit trees in the small orchard in the wildlife area to the south of the site.

***It is hoped** to increase the diversity of the site by planting a variety of species to complement the plants that are currently present in the wildlife area. The plants selected will be species that are attractive to pollinators.*

***There is a possibility** for the creation a small pond which will be used to enhance the environment, provide a greater diversity to the area, and also provide educational opportunities for students studying for Geography and Science.*

***Should these proposed compensation measures come to fruition** they will increase the diversity of the area and provide a connectivity corridor between the river to the west and the railway embankment to the east. They have the potential to provide to the ecosystem services by contributing to a better quality of air and provide a food source.”*

These measures are aspirational, but they must be definite, accompanied by a long-term management plan and must demonstrate a Net Benefit for Biodiversity – see the diagram extracted from Planning Policy Wales (shown on page 6 of Document 2).

- o More details are required regarding the enhancement measures set out on page 17 (i.e., bird boxes, bat boxes, bee hotels, hibernaculum). Including, for example numbers of boxes etc, all wildlife box model types with hyperlinks to the specifications (NB these should be constructed from woodcrete or woodstone for reasons of longevity), hibernaculum design, positioning. All measures must be marked on relevant plans.

Document 3

- o This horizontal illuminance plan only includes the proposed floodlighting for the athletics track and does not include the floodlighting proposed for the MUGA.
- o Pre-App comments regarding lighting were as follows:

“A lighting engineer will need to be commissioned. They will initially need to survey the site to provide onsite baseline ambient levels. They will also need to produce horizontal and vertical illuminance plans for the proposed onsite lighting, e.g., for comparison with the baseline ambient levels and to allow a full assessment the probable impacts of the lighting on habitats and species. Collaboration with the commissioned ecologist will be essential.”
- o Onsite ambient light levels are needed to provide a baseline. Horizontal *and* vertical illuminance plans are required.
- o The lighting plan must conform to the latest guidelines (<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>). This will include, but not be limited to:
 - o The contours (and/or coloured numbers) for 0.2, 0.5, 1, 5, and 10 lux must be clearly shown, as well as appropriate contours for values above these.
 - o A colour temperature of 2700K or lower (currently Document 3 features luminaires of 4000K)
 - o Peak wavelengths of 550nm or higher
 - o The boundary habitat and river corridor must remain either:
 - illuminated to levels no greater than onsite baseline ambient levels; or
 - dark – in line with the criteria/definition as set out in the lighting guidelines (at or below 0.2lux on the horizontal plane and at or below 0.4lux on the vertical plane).
- o NB looking at the illuminance contours currently proposed for the athletics track (Document 3), the boundary habitat and river corridor will be illuminated to unacceptable levels. These habitats will be important for commuting and foraging bats and in addition, there are trees with suitability for roosting bats within the boundary.
- o Restrictions on when the light is in use must please clearly set out.

REQUIREMENTS

General

- o Amendments to Documents 1-4, as set out above.

Further survey work

- o Now that a proposed lighting plan has been provided, it is clear that there may be impacts from lighting on foraging, commuting and roosting bats (Document 1, Appendix II target notes at least x9 trees with suitability for roosting bats). Further survey work is therefore required.
- o An onsite baseline ambient light level survey is required.

Planning conditions

- o No development shall take place (including ground works, vegetation clearance) until a Construction Environmental Management Plan - Biodiversity (CEMP-B) has been submitted to and approved in writing by the local planning authority.
- o No development shall take place (including ground works, vegetation clearance) until a detailed long-term Landscaping, Habitat & Ecology Scheme (LHES) has been submitted to and approved in writing by the local planning authority. The LHES must include, but not be limited to, the following:

- Details of retained landscaping/habitat/green infrastructure
- Details of new landscaping/habitat/green infrastructure
- A planting plan
- Long term (at least 25 years) maintenance and management measures for all onsite landscaping/habitat/green infrastructure (both retained and new)
- Details of other ecological measures, e.g., bat boxes, bird boxes, hibernacula, gaps in boundaries for hedgehogs etc
- Monitoring post-development for all onsite landscaping/habitat/green infrastructure and other ecological measures
- Details of the funding mechanisms to meet the maintenance, management and monitoring objectives.
- Details of the responsible person
- No development shall take place (including ground works, vegetation clearance) until an Invasive Non-Native Species (INNS) management plan has been submitted to and approved in writing by the local planning authority.