Ecological Impact Assessment

Aldi, Mafon Road, Nelson, Caerphilly

20th February 2024

TG Report No. 13571_R01a_VKC

Tyler Grange

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Summary

S.1. This report has been prepared by Tyler Grange Group Limited on behalf of Aldi Stores Ltd. It sets out the findings of an Ecological Impact Assessment for land off Mafon Road, Nelson, Caerphilly, CF46 6PE, hereafter referred to as 'the site', to inform the proposed demolition of the existing building on site and the construction of a new supermarket with associated carparking and soft landscaping including sustainable drainage systems (SuDS).

S.2. An initial 'extended' phase I habitat survey and preliminary bat roost assessment were undertaken on 21st November 2023. A summary of the results and recommendations are as follows:

- **The** site comprises one building, hardstanding, areas of introduced shrub, modified grassland, bramble scrub and ruderal vegetation, as well as broadleaved woodland and scattered broadleaved trees;
- The building within the site was assessed as having low suitability to support roosting bats and is therefore recommended to undergo one further bat emergence survey, during the bat survey season (May to August, inclusive) to determine the presence or likely absence of bats;
- Habitats within the site support nesting birds and therefore an Ecological Clerk of Works (ECoW) will be required should these habitats be lost during the bird nesting season (see **Section 3** of this report);
- Part of a stream flows through the northeast corner of the site. During the construction phase of the proposed development, there could be potential impacts to the stream via chemical run-off, noise/vibration impacts, dust etc. Standard best practice pollution prevention is expected to be incorporated into a Construction Environmental Management Plan (CEMP). These potential impact pathways will therefore be controlled and impacts to the stream avoided; and
- As the site contains habitats that could support a small number of amphibians, badgers, hedgehogs and reptiles, as well as commuting otters, basic mitigation measures (as detailed in **Section 3**) will be adhered to during the construction and operational phases of the development.

S.3. In terms of protected sites, the data search identified one Natura 2000 site within 10 km of the site boundary and one national statutory designated site and 16 non-statutory designated sites within 2 km of the site. Due to the distance between them and the site, no impacts from construction phase of the proposed development are expected to arise and, due to nature of the proposals, no negative impacts are expected to arise from the operational phase of the development.

S.4. Habitats of local ecological importance within the site, namely the stream, area of broadleaved woodland and scattered broadleaved trees are to be retained. Site enhancements through native shrub and tree planting, in line with the Welsh government's net benefit for biodiversity (NBB) approach. Losses of introduced shrub, modified grassland and ruderal vegetation, of negligible importance, would not trigger planning policy.

S.5. The species-specific mitigation and enhancement recommendations made in **Section 3** of this report would be actioned through the production of a CEMP and a Landscape and Ecological Management Plan (LEMP). These can be secured through suitably worded planning conditions.

Section 1: Introduction and Context

Introduction

1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Aldi Stores Ltd. This report sets out the findings of an Ecological Impact Assessment for Land off Mafon Road, Nelson, Caerphilly, CF46 6PE (Ordnance Survey Grid Reference ST 10829 95114), hereafter referred to as 'the site', to support a planning application for the development of the site to Caerphilly County Borough Council. See **Figure 1.1** below for the indicative red line boundary.

Figure 1.1: Indicative red line boundary (© Google Aerial Imagery)

1.2. This assessment has been undertaken to inform a planning application for the development of the site to comprise the construction of a new Aldi supermarket with associated carparking and soft landscaping. The site plan is shown in **Appendix 3** of this report.

Site Context

1.3. The site is approximately 1.05 ha in size and comprises a building, hardstanding, areas of introduced shrub, modified grassland, bramble scrub and ruderal vegetation. Broadleaved woodland and scattered broadleaved trees associated with the stream (Unknown name, but potentially a culverted tributary of the River Taff) runs through the north east of the site before being culverted underneath the site. The site is located within the urban area of Nelson, Caerphilly and is bordered by residences and businesses to the north and greenspace including arable land and broadleaved woodland to the south, east and west.

Purpose

1.4. This report:

- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely "Zone of Influence"[1] (ZoI) of the proposed development;
- Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development.
- Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 1**; and
- With the results of the recommended reptile surveys, can be used to inform a planning application for the site's development.

1.5. This assessment and the terminology used are consistent with the Guidelines for Preliminary Ecological Appraisal[2] and the Guidelines for Ecological Impact Assessment[3]. A full methodology is set out in **Appendix 2**.

Methodology

1.6. Full methods for the data search and 'extended' phase I/UK habitat survey are described in **Appendix 2** of this report.

Quality Control

1.7. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct[4].

[1] Defined by the CIEEM (2018) Guidelines for Ecological Impact Assessment as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries

[2] CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

[3] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

[4] CIEEM (2022) Code of Professional Conduct. CIEEM, Winchester

Section 2: Ecological Features and Evaluation

Designated Sites

2.1. The data search was based on records purchased from South East Wales Biodiversity Records Centre (SEWBReC), as well as data from the Multi-Agency Geographic Information for the Countryside (MAGIC). See **Appendix 2** for full methodology.

2.2. The data search returned one Natura 2000 site (encompassing Special Areas of Conservation, Special Protection Areas or Ramsar sites) within 10 km of the site and one national statutory designated site (encompassing National Nature Reserves, Sites of Special Scientific Interest or Local Nature Reserves) within 2 km. These sites are described in **Table 2.1** below.

2.3. The data search returned 17 non-statutory designated sites, known as Sites of Interest for Nature Conservation (SINC) in South Wales, within 2 km of the site. These are detailed in **Table 2.2** below.

Table 2.1: Statutory Designated Sites

Designated site	Distance and direction from site	Citation	Ecological Importance
Aberbargoed Grasslands Special Area of Conservation (SAC)	6.4 km northeast of the site	Designated for its large and relatively isolated population of marsh fritillary *Euphydryas aurinia* on a series of damp pastures and heaths, representing the species on the eastern edge of its range in Wales.	International
Nelson Bog Special Site of Scientific Interest (SSSI)	1 km northeast of the site	Designated for its rare plants and wildlife including orchids, bats, badgers *Meles meles* and otters *Lutra lutra*.	National

Table 2.2: Non-statutory Designated Sites

Designated site	Approximate distance and direction from site	Ecological Importance
Cwm Afon Railway Line, West of Nelson Site of Importance for Nature Conservation (SINC)	0.3 km west of the site	Local
Cwm Afon, West of Nelson SINC	0.7 km northwest of the site	Local
Wern Woodland, Nelson SINC	0.9 km northeast of the site	Local
Whitehall Golf Course SINC	0.9 km west of the site	Local
Cwm Mafon SINC	0.9 km northwest of the site	Local
Nant Caiach SINC	1.2 km north of the site	Local
Brooklands Marsh, North of Nelson SINC	1.2 km north of the site	Local
Llancaiach-Fawr Meadows, Llancaiach SINC	1.3 km northeast of the site	Local
Nant Cae-Dudwg Mire, North of Senghenydd SINC	1.3 km southwest of the site	Local
Land at Tair Waun Uchaf Isaf and Cwmheldeg Farm SINC	1.4 km south of the site	Local
Craig Berthlwyd SINC	1.4 km northwest of the site	Local
Berthlwyd SINC	1.6 km northwest of the site	Local
Lower Taf & Edwardsville SINC	1.6 km northwest of the site	Local
Tredomen Tip Ponds, Nelson SINC	1.6 km east of the site	Local
Mynydd Eglwysilan, North of Senghenydd SINC	1.6 km south of the site	Local
Coed Gelliau'r-Gwellt, East of Llancaiach SINC	1.7 km northeast of the site	Local
Afon Bargoed Taf SINC	1.8 km northwest of the site	Local

Habitats and Flora

2.4. The habitats present on site are summarised below in **Table 2.3**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The locations of the habitats are shown on the Habitats Features and Preliminary Bat Roost Assessment Plan (ref: **13571/P01**).

Invasive Species

2.5. During the phase I habitat survey, Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Reynoutria japonica* were identified throughout the site, shown in **Photographs 2.1** and **2.2** below and as Target Notes on plan **13571/P01**. These species are listed under Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 in Wales and as such it is an offence to plant or otherwise allow this species to spread out of the landowners control and into adjacent private or common land.

Photograph 2.1: Himalayan balsam along the western site boundary

Photograph 2.2: Japanese knotweed in the northwest corner of the site

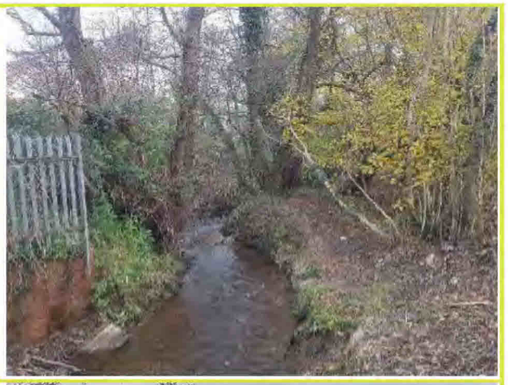
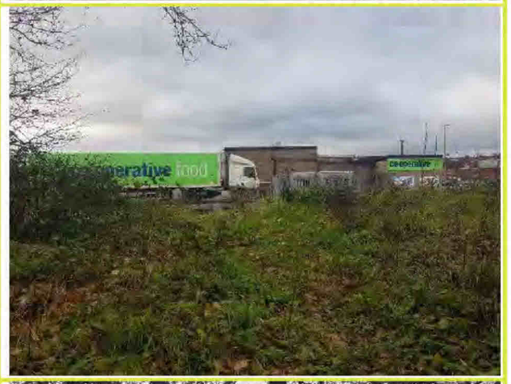
2.6. Rock cotoneaster was also identified on-site during the phase I habitat survey, shown in **Photograph 2.3** below, which is also listed on Schedule 9 of the WCA 1981.

Photograph 2.3: Rock cotoneaster in the northwest of the site

Table 2.2: Habitats and Flora

Habitat with UK Habs Code	Description and Species	Ecological Importance	Photograph
Bramble scrub Primary code: Bramble scrub h3d	In the northeast corner of the site, adjacent to the broadleaved woodland, as well as in the southwestern corner of the site, are areas of bramble *Rubus fruticosus* agg. scrub.	This habitat is common within the wider landscape, as well as the UK overall, and in this case is limited in species diversity. As such this habitat is considered to be of **negligible ecological importance**.	
Building Primary code: Buildings u1b5 Secondary code(s): Commercial Building	There is one building within the site boundary (referenced as B1 on plan **13571/P01**), located in the centre of the site. B1 is a single-storey building of brick-and-mortar construction, with a shallow-pitched corrugated metal roof. The eastern section of the building is an extension with metal cladding and metal soffits. The building is currently used as a supermarket (Co-op Food).	Buildings have no inherent ecological value and this habitat type is therefore considered to be of **negligible ecological importance**.	
Broadleaved woodland – Lowland mixed deciduous woodland Primary code: Lowland mixed deciduous woodland w1f	In the northeast corner of the site is an area of broadleaved woodland, comprised primarily of coppiced hazel *Corylus avellana*, as well as some alder *Alnus glutinosa* and English oak *Quercus robur*.	Trees and leaf litter within woodland offer habitat opportunities for a diverse range of flora and fauna, as such, broadleaved woodland is considered to be of **local ecological importance**.	

Hardstanding – Developed land sealed surface Primary code: Developed land – sealed surface u1b Secondary code(s): N/A	The majority of the site comprises a carpark, currently in use and accessible to the public.	Hardstanding provides no inherent ecological value and therefore this habitat type is of **negligible ecological importance**.	
Introduced shrub – Non native and ornamental hedgerow Primary code: Built-up areas and gardens u1 Secondary code(s): Introduced shrub 847	There are some small areas of ornamental planting in the west of the site, comprised mostly of *Cotoneaster* sp, including rock cotoneaster (an invasive species, as described above).	This habitat type is very common in the wider landscape and in this case comprises a non-native ornamental plant. As such this habitat is considered to be of **negligible ecological importance**.	
Modified grassland Primary code: Modified grassland g4 Secondary code(s): Mown 106	There are small areas of modified grassland present within the site, as shown on plan **13571/P01**. The patches in the north of the site are dominated by perennial ryegrass Lolium perenne, with the sward length kept short. Other species present include daisy *Bellis perennis*, creeping thistle *Cirsium arvense* and white clover *Trifolium repens*. The strip of grassland along the southern and eastern boundaries was more diverse, dominated by winter grass *Poa annua* with false oat-grass *Arrhenatherum elatius*, cock's-foot *Dactylis glomerata*, ragwort *Jacobaea vulgaris*, spear thistle *Cirsium vulgare*, herb Robert *Geranium robertianum* and creeping buttercup *Ranunculus repens* also present.	This habitat is formed of common and widespread species and is a common habitat in the immediate surrounding landscape, and in the UK overall. Modified grassland offers sub-optimal habitat for wildlife and in this case is small in extent, regularly mown and largely isolated from more suitable habitat by areas of hardstanding. Consequently, this habitat is considered to be of **negligible ecological importance**.	

Running water - Rivers and streams other priority habitat Primary code: Other priority habitat rivers r2a6	There is a section of a stream that flows through wooded area in the northeast of the site and is culverted, to the northeast of the existing building on-site, as shown on plan **13571/P01**.	The stream has inherent ecological value as it provides habitat opportunities for flora and fauna and would be considered to be a priority habitat[5]. It is therefore considered to be of **county ecological importance**.	
Ruderal vegetation Primary code: Built-up areas and gardens u1 Secondary code(s): Ruderal/ephemeral 17	There are small patches of ruderal vegetation along the western site boundary and an area of grass with ruderal vegetation in the northeast corner of the site, adjacent to the broadleaved woodland. Species present include broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, dandelion *Taraxacum* agg., Himalayan balsam and wild strawberry *Fragaria vesca*.	This habitat is very common in the wider landscape and comprises common and widespread species as is therefore considered to be of **negligible ecological importance**.	
Scattered Broadleaved Trees Primary code: Built-up areas and gardens u1 Secondary code(s): Scattered trees 11	There are some scattered broadleaved trees (shown as T1 – T4 on plan **13571/P01**) throughout the site, including English oak, hazel, ash *Fraxinus excelsior* and hawthorn *Crataegus monogyna*.	These trees have inherent ecological value, as they provide habitat opportunities for flora and fauna, and as such are considered to be of **local ecological importance**.	

[5] List of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales under Section 7 of the Environment (Wales) Act 2016.

Protected and Notable Species

2.17. Habitats within the site may offer opportunities for the following species groups. Species which are considered likely absent from the site based on professional judgement, following consideration of the habitats within the site, signs of species presence at the time of survey and data search records, are not discussed.

Amphibians

2.18. The data search returned 66 records of amphibians within 2 km of the site boundary. The closest record was that of a common frog *Rana temporaria*, recorded approximately 0.2 km east of the site in 2023. No records of great crested newt (GCN) Triturus cristatus were returned by the data search.

2.19. No ponds or other waterbodies suitable for amphibians (the stream running through the northeast of the site is not considered to be suitable to support amphibians due to its fast flow) are located on-site, and the habitats within the site are largely unsuitable for amphibians, however, the areas of modified grassland, introduced shrub, ruderal vegetation, bramble scrub and broadleaved woodland offer some limited terrestrial habitat for amphibians, such as common frog and common toad *Bufo bufo*.

2.20. Immediately adjacent to the south and east of the site is an extensive area of greenspace with suitable terrestrial and aquatic habitat for amphibians, including GCN if present; there is one waterbody located approximately 10 m east of the site and another approximately 75 m east so any amphibian present there could access and utilise the site.

2.21. Given the proximity of suitable breeding habitat to the site, as well as suitable terrestrial habitat connecting these waterbodies to the strips of grassland along the southern and eastern boundaries of the site, it is possible that GCN, if present, could use the site. The extent of suitable terrestrial habitat is on site however is limited and thus it is not considered likely GCN are utilising the site.

2.22. It is considered any population utilising terrestrial habitats on site, such as the very limited grassland and scrub habitat, would also be using more suitable and extensive habitats beyond the site boundary and not reliant site alone. As such, any population of amphibians such as common toad on-site would be of **negligible ecological importance**.

Bats

2.23. The data search returned 112 records for 11 bat species within 2 km of the site. The species returned by the data search are as follows:

- Brandt's *Myotis brandti*;
- Brown long-eared bat *Plecotus auritus*;
- Common pipistrelle *Pipistrellus pipistrellus*;
- Daubenton's *Myotis daubentonii*;

- Lesser horseshoe bat *Rhinolophus hipposideros*;
- Nathusius' pipistrelle *Pipistrellus nathusii;*
- Natterer's bat *Myotis nattereri*;
- Noctule bat *Nyctalus noctula*;
- Serotine *Eptesicus serotinus*;
- Soprano pipistrelle *Pipistrellus pygmaeus*; and
- Whiskered *Myotis mystacinus*.

2.24. The nearest of these was a record of common pipistrelle approximately 0.2 km north of the site in 2016.

Day-time Bat Walkover

2.25. Overall, the site offers little habitat suitable for foraging and commuting bats and areas of suitable foraging habitat within the site are limited to the area of broadleaved woodland, including the stream running through it, in the northeast corner of the site. The off-site areas of grassland to the south and east, as well as the stream and associated riparian zone to the west of the site, also offer habitat suitable for foraging and commuting bats.

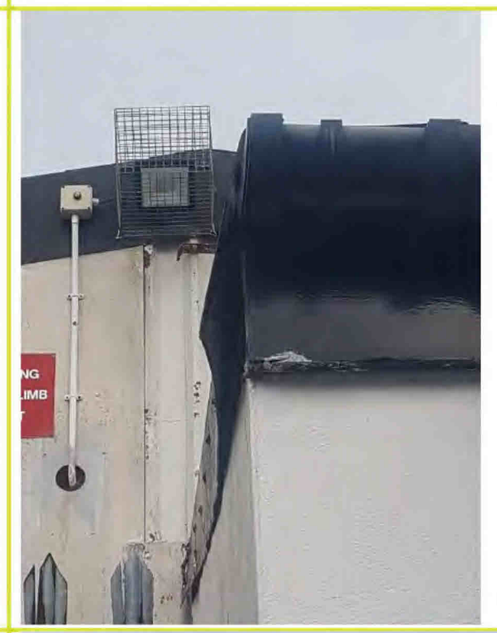
2.26. Due to the site's urban setting with high levels of artificial lighting at night only light tolerant species would be expected to utilise the site or adjacent habitats. Due to the proximity of higher quality foraging habitat to the south and east in the wider area, specifically the scrub, grassland habitat and areas of woodland, bats would not be reliant on the site as a commuting or foraging resource. Overall, the assemblage of bats utilising the site for foraging and commuting is considered to be of **negligible ecological importance**.

Preliminary Bat Roost Assessment

2.27. A PBRA was conducted alongside the 'extended' Phase I habitat survey. This assessment was carried out on the buildings and trees within the site, which may be impacted by the development. See **Appendix 2** for methodology and **Table 2.4** below for results. The locations of the building and trees are shown on plan **13571/P01**.

2.28. Further survey work is required to inform the presence or likely absence of roosting bats, which will be completed from May - August 2024, with the results updated in this report.

Table 2.3: PBRA Results for Building B1

Structure / Tree and Suitability	Potential Roost Feature (PRF)	Photograph
Building B1 – Low suitability	PRF a – A section of lifted metal flashing on the southern elevation of the building provides space to potentially support a small number of crevice-dwelling species, such as common or soprano pipistrelle.	
	PRF b – gaps under the roofing felt on the eastern elevation of the building would enable a small number of crevice-dwelling species to roost.	

	PRF c – space between the soffit and brick on the northern elevation could support a small number of crevice-dwelling species.	
	PRF d – gaps by soffit box on northern elevation provide space to support a small number of crevice-dwelling species.	

	PRF e– large gaps under the metal porch over the main entrance on the building (on the northern elevation) could lead into space suitable for crevice-dwelling and/or cavity-dwelling species.	
	PRF f – gaps under the metal soffit on the southern elevation of the building provide space to support a small number of crevice-dwelling species.	

Birds

2.29. The data search returned 450 records of protected and notable bird species within 2 km of the site. Of these, some species of relevance to the site include dunnock *Prunella modularis*, song thrush *Turdus philomelos* and starling *Sturnus vulgaris*.

2.30. Habitats within the site, namely the building, broadleaved woodland, bramble scrub, scattered trees and introduced shrub offer habitat suitable to support common and widespread nesting birds. It is considered the assemblage of birds that may use the site for foraging and breeding is of **negligible ecological importance**.

2.31. During the external inspection of the building however, old swallow *Hirundo rustica* nests were found on the western to southern elevations. Consideration for nesting birds to avoid a breach of legislation is discussed in **Section 3** of this report.

[redacted]

Eurasian Otter

2.35. The data search returned a record of otter *Lutra lutra* on-site (by the stream in northeast of the site) in 2021.

2.36. However, due to the site's location being adjacent to the A472, the site is subject to noise disturbance and it is therefore considered unlikely that otters would use this area for a holt (resting place). However, the confirmed presence of otter on-site suggests they use this section of the stream to commute and forage. Any otter population present could be of at least **county ecological importance**.

Reptiles

2.37. The data search returned 11 records of reptiles within 2 km of the site, the nearest of which was that of a slow worm *Anguis fragilis*, recorded approximately 0.5 km northeast of the site boundary in 2018.

2.38. The areas of modified grassland along the southern and eastern boundaries, as well as the ruderal vegetation and scrub in the northeast corner of the site, offers limited habitat for reptiles. However, due to the site's current use (a supermarket and associated carpark), only a small population of common reptiles would likely be present and would not be reliant on the habitats within the site. Any assemblage of reptiles utilising the sites habitats would be considered of ecological importance within the context of the site, only.

Water Vole

2.39. The data search returned no records of water vole *Arvicola amphibius* within the last 20 year, and all between 1.5 and 2 km from the site. The most recent record returned was from 2000.

2.40. The riparian vegetation within the site boundary is predominantly under the woodland canopy and lacks vegetation structure for foraging and shelter. Within the site the stream runs into a heavily culverted section which is not suitable for water voles and would be considered a barrier to their movement. Overall the site and adjacent riparian habitats are considered to be sub-optimal for water voles and considering the lack of recent records as well as the presence of American Mink *Neovison vison* within 100 m of the site recorded within the last 5 years, it is considered unlikely that water voles would be present. As a result, they are considered to be likely absent from the site, and are not discussed any further in this report.

West European Hedgehog

2.41. The data search returned 20 records of west European hedgehog *Erinaceus europaeus* within 2 km of the site, the nearest of which was recorded approximately 0.4 km west of the site in 2021.

2.42. The small areas of ruderal vegetation, modified grassland and bramble scrub, as well as the broadleaved woodland, offer some foraging opportunities for hedgehogs and thus the site may support small numbers of occasional foraging and commuting hedgehogs of ecological importance within the context of the site, only .

Section 3: Ecological Impacts, Mitigation, and Enhancement

Proposed Development

3.1. The proposals comprise the construction of a new Aldi store with associated car parking and soft landscaping including planting of native trees, as well as the construction of a new headwall to the south of the culvert (see the proposed site plan in **Appendix 3** and the preliminary proposed drainage layout in **Appendix 4**). The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 1**.

Potential Impacts and Requirement for Mitigation

3.2. Both the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006 give the importance of conserving biodiversity a statutory basis, requiring government departments (which includes Local Planning Authorities) to have regard for biodiversity in carrying out their obligations (which includes determination of planning applications) and to take positive steps to further the conservation of listed species and habitats. These articles of legislation require Caerphilly County Borough Council to take measures to protect species or habitats from the adverse effects of development, where appropriate, by using planning conditions or obligations. Planning authorities should refuse permission where harm to the species or their habitats would result, unless the need for, and benefits of, the development clearly outweigh the harm.

3.3. Planning Policy Wales (PPW) 2024 requires that the planning system should contribute to and enhance the natural and local environment, minimising impacts on biodiversity and providing net gains, as well as local planning policy, a summary of which is provided in **Appendix 1**.

Designated Sites

3.4. No direct or indirect impacts on the designated sites returned by the data search are considered likely to arise as a result of the proposed development. This is due to the substantial distance between them and the site and the nature of the proposals; no impacts from increased recreational pressure are anticipated as the use of the site is not changing.

3.5. Nonetheless, standard construction safeguards will be implemented during construction to prevent any impacts occurring to retained habitat and off-site receptors during construction, which will further ensure no impacts occur to any designated sites. Further detail would be provided within a Construction Environmental Management Plan (CEMP).