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Our ref: 553496AB16SEPT25FV03\_PEA

Dear Ian Reay

## **PRELIMINARY ECOLOGICAL APPRAISAL - UPDATE LETTER REPORT**

### **INTRODUCTION**

Greengage was commissioned by CPC Project Services to undertake an updated Preliminary Ecological Appraisal (PEA) to establish the current ecological baseline of an area of land known as Broughton Shopping Centre Northern Quarter in North Wales, immediately adjacent to Chester Road in Broughton, within the administrative boundary of Flintshire County Council hereafter referred to as 'the site'.

A Preliminary Ecological Appraisal (PEA)<sup>1</sup> was undertaken by Greengage in August 2023. The 2023 survey recorded that the site comprised bramble and mixed scrub and modified grassland with a row of trees along the southern boundary. The site was deemed to have moderate potential to support foraging and commuting bats, high potential to support nesting birds and low potential to support hedgehog.

Recommendations were made for landscaping to enhance the biodiversity of the site.

This letter reports the findings of the update walkover survey, undertaken by Greengage in August 2025 and should be read in conjunction with the previous report. The reports have been prepared to inform a planning application which seeks construction of a new stand-alone LIDL foodstore (21,200 ft<sup>2</sup> GIA) complete with sales area and back of house facilities, service dock & yard, with customer car parking (138 spaces) and soft landscaping to front, side and rear of the building. Separate customer and servicing access/egress will be provided to the existing main entrance road and service road respectively.

The aim of the site walkover was to undertake an updated high-level appraisal of the site in order to identify any changes to habitat condition/protected species value since the original suite of assessments in 2023. Commentary is provided below on current condition, with

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<sup>1</sup> Greengage (2023) Broughton Shopping Centre, Preliminary Ecological Appraisal. [552445dpAug23FV01\_PEA]



mitigation, compensation and enhancement recommendations described in light of current proposed development works.

## METHODOLOGY

The updated site walkover was undertaken by Dan Perlaki, Senior Consultant on the 1st August 2025 during sunny and clear weather conditions.

Habitats present within the proposed works area were identified and a protected/notable species scoping assessment was undertaken in accordance with guidance in the UK Habitat Classification System<sup>2</sup> (UKHab) and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal<sup>3</sup>, in accordance with British Standard (BS) 42020: 2013: Biodiversity<sup>4</sup>.

Features within the site boundary and accessible features immediately bordering it were evaluated, and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

The site boundary and the baseline habitats identified during the walkover are shown in Appendix A, Figure A.1.

Dan Perlaki, Senior Consultant, who undertook the survey update and reviewed this report has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM. Dan has over 8 years' experience in ecology survey and consultancy.

Abbey Beddoe, Graduate Consultant, who prepared the report, has a BSc degree in Zoology (Hons) and an MSc in Environmental Consultancy. Abbey has over one years' experience in ecological survey and assessment.

Georgia Alfreds, Principal Consultant, who verified this report has a degree in Geography (BSc Hons), an MSc in Environmental Biology: Conservation and Resource Management and is an Associate member of CIEEM with 16 years' experience in ecological survey and assessment and is a Level 4 botanist as accredited by FISC.

This letter report was written by Abbey Beddoe, reviewed by Daniel Perlaki and verified by Georgia Alfreds who confirms that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

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<sup>2</sup> Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020) *The UK Habitat Classification User Manual Version*

<sup>3</sup> CIEEM (2017); *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>4</sup> BSI (2013); *British Standard 42020:2013: Biodiversity — Code of practice for planning and development*, BSI Standards Publication

## RESULTS

### Desktop Review

A consultation with the local biodiversity records centre (Cofnod) during the 2023 PEA and a recent review of DEFRA's Multi-Agency Geographic Information for the Countryside (MAGIC) website<sup>5</sup> confirms that there are no statutory designated sites of national or international importance within the boundary of the site or within a 2km radius. The site is however, located approximately 1.45km northeast of one non-statutory Wildlife Site within 2km of the site pertaining to Mold Junction Triangle Wildlife Site, a disused railway junction designated for its species-rich grassland, silver birch *Betula pendula* scrub, and uncommon plant species that support a variety of butterflies.

The nearest statutory designation of international importance is River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid Special Area of Conservation (SAC), approximately 2.5km northwest of the site at its nearest point.

Consultations with MAGIC also confirms there are no Biodiversity Action Plan (BAP) priority habitats on site. The following UK BAP priority habitats were present in the immediate vicinity:

- Ponds located approximately 200m east of the site.

### Habitats

The walkover confirmed that the habitats on site are consistent with those recorded during the 2023 PEA survey. The site is approximately 1.36 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OSNGR) SJ 34939 64152, OS Co-ordinates 334953, 364153. Detailed habitat descriptions are provided below for:

- h3h - Mixed scrub;
- g4 - Modified grassland with [10 - scattered scrub] [128 -tall/tussocky sward] [124-anthills];
- w1 33 - Line of trees; and
- h3d - Bramble scrub.

#### Mixed Scrub [530 - Ecotone]

The mixed scrub habitat lies to the west of the site and is composed of a mixture of woody species, the most dominant of which is hawthorn *Crataegus monogyna*. Also present are blackthorn *Prunus spinosa*, lime *Tilia sp.*, bramble *Rubus fruticosus agg.*, alder *Alnus glutinosa*, maple *Acer sp.* and hazel *Corylus avellana*. Ground-level flora is dominated by meadow foxtail *Alopecurus pratensis*, with frequent creeping thistle *Cirsium vulgare*.

The scrub transitions through dense creeping thistle to modified grassland habitat at its eastern extent.

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<sup>5</sup> MAGIC (2019); Interactive Map. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). Available at: [www.magic.gov.uk](http://www.magic.gov.uk).

The age structure of the scrub is varied, with numerous lime and hawthorn trees and young saplings present. The main body of the scrub is very dense and impenetrable, however around its edge it is thinner.

Modified grassland [10 - scattered scrub] [32 - scattered trees [128 - tall/tussocky sward] [124 - anthills]

The majority of the site comprises modified grassland. Minor scrub encroachment is present along its interface with the scrub habitat, and there are two hawthorn trees within the centre of the grassland. The grassland is rank and unmanaged with a tall, tussocky sward and numerous anthills.

The sward is species poor and is almost entirely dominated by meadow foxtail. Creeping thistle is abundant, and dock *Rumex obtusifolius*, willowherb *Epilobium sp.* and nettle *Urtica dioica* are frequent. Occasional species include ragwort *Jacobaea vulgaris* and hogweed *Heracleum sphodylium* whilst common fleabane *Pulicaria dysenterica* and cow parsley *Anthriscus sylvestris* were recorded rarely.

Broadleaved herbs are found at low densities owing to the dense grass sward, and there is little spatial variation in the grassland with the only change visible being the increased frequency of nettles towards the western mixed scrub.

A row of six lime trees was present along the southern boundary of the site. They are semi-mature and approximately 8m in height, although their canopies do not overlap and they show signs of poor health such as epicormic growth.

### Bramble scrub

The bramble scrub present forms the eastern site boundary and is the start of transition into more developed mixed scrub beyond the site boundary. It is dominated exclusively by bramble growing to approximately 1m height and is uniform in age structure.

## RECOMMENDATIONS AND MITIGATION

Recommendations for mitigation and enhancements detailed in the 2023 PEA report remain valid and are provided below for reference:

An Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) should be produced and implemented for the site providing greater detail on the below, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

### Designated sites

One non-statutory designated site is located approximately 1.45km northeast of the site pertaining to Mold Junction Triangle Wildlife Site. Impacts upon the wildlife site associated with construction and operation of the site are considered highly unlikely due to the scale of the development. Despite this, a CEMP should be produced to detail control measures for dust deposition and surface water runoff into adjacent habitats.

The River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (SAC) is located approximately 2.5km northeast of the site, at its nearest point. The distance, small scale of the development proposals, and the separation of the site from the SAC by Howarden Airport

mean any direct or indirect impacts associated with construction and operation are considered to be negligible.

### Notable/Rare habitats

Multiple UK Biodiversity Action Plan (BAP) priority habitat ponds were identified within 200m of the site. Impacts upon the pond associated with construction and operation of the site are considered highly unlikely due to the scale of the development. Despite this, a CEMP should be produced to detail control measures for dust deposition and surface water runoff into adjacent habitats.

### Bats

#### Foraging and Commuting

The site is assessed as having moderate suitability for foraging and commuting bats, due to high levels of artificial lighting from adjacent roads and the limited availability of suitable commuting and foraging habitat on site. Some bat species are highly photosensitive, and artificial light can disrupt their ability to forage and evade predators, further reducing the site's overall suitability and further bat surveys are therefore not required.

The loss of foraging and commuting habitat should be compensated for through appropriate compensatory planting. This should feature native shrubs and trees planted around the site perimeter to mimic the scrub habitat adjacent to the site and provide habitat structure and a visual screen to light spill from within the site.

Lighting design for the proposed development should follow best practice guidance set out by the Bat Conservation Trust (BCT) and Institute of Lighting Professionals<sup>6</sup>. This should include avoiding light spill on adjacent habitat suitable for foraging and commuting bats, minimising the duration of illumination of external light fittings through appropriate controls, use of cowls and hoods to ensure lighting is directional and aimed only at areas where required and using the minimum lux levels possible.

### Great Crested Newt (GCN)

It is reasonable to assume that GCN are not associated with the site due to the permanent one-way exclusion fencing has been installed along a pedestrian footpath between the site and the offsite ponds, which would inhibit GCN from entering the site. As well as this, the surrounding roads act as a significant barrier to movement, further inhibiting GCN from accessing the site by any alternative route. However, high number of records of GCN were identified within the vicinity of the site during the data search undertaken in 2023 and the offsite ponds are known to support GCN. The presence of a small gap in the fencing (see Appendix A for site photos) was also recorded, it is recommended that the proposed development proceed under a Reasonable Avoidance Measures (RAM) Method Statement. Suitable RAM would include cutting vegetation down to 10cm height under the supervision of an Ecological Clerk of Works (ECOW) to allow any amphibians and small mammals to exit the site via their own volition via the one-way fence. Clearance should be directional

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<sup>6</sup> Bat Conservation Trust and Institute of Lighting Professionals (2023); Bats and Artificial Lighting in the UK: Bats and the built environment series. BCT, London.

working towards the one-way fencing. Suitable weather constitutes is 5 degrees overnight minimum. This should be secured through planning condition.

### Birds

Habitat with the potential to support nesting birds, in particular the trees, should be retained on site where possible. Any tree or shrub removal should be undertaken outside of nesting bird season, which is typically recognised as March-August, inclusive.

Where clearance must take place in the nesting bird season, this will only take place after a nesting bird check has been undertaken by a Suitably Qualified Ecologist (SQE). This check will take place 48 hours or less prior to clearance. Where no nesting is identified by the SQE the clearance works may take place within 48 hours without need for further mitigation.

Where nesting is found clearance of that vegetation will be halted. The SQE will provide a buffer zone where works cannot take place until fledglings have left and nesting can be confirmed as absent. Once the nest has been confirmed as no longer active, clearance of that vegetation will be completed. The time taken for chicks to fledge varies dependant on species but in general ranges from 2-6 weeks.

Once this is undertaken, the construction site should be managed to reduce the likelihood of nesting throughout the construction period.

Compensatory scrub planting should be planted around the site periphery, mimicking scrub habitat adjacent the site. Native shrubs such as hawthorn, blackthorn and elder should be incorporated. This will provide nesting opportunities in addition to foraging resources. Any grassland habitats proposed on the site should also incorporate diverse forbs within the sward to provide seed sources. The proposed new buildings should also incorporate integrated bird boxes suitable for a range of notable species to compensate for the loss of nesting opportunities associated with tree and scrub removal.

To minimise bird strike risk associated with Howarden Airport (approximately 800m north of the site), measures such as bird netting, bird scarers and/or bird spikes may be required to deter species frequently implicated in bird strikes.

### BAP Species

Site clearance of grassland and scrub habitats has potential to result in the death of hedgehogs. Scrub habitat has the potential to support hibernation sites utilised in winter in addition to refuge during the active period for hedgehogs, whereas the grassland areas provides foraging opportunities. Further survey is not necessary, but during ground preparation for the development, vegetation clearance should be undertaken in accordance with a Precautionary Method of Works (PMoW), to mitigate potential impacts, including:

- Any suitable vegetation should be cleared in stages: to 200-300mm in the first instance, then to ground level. Cuttings should be immediately cleared away;
- Any individuals encountered should be left to move away from the footprint of works of their own volition. If in immediate danger, hedgehog can be carefully moved with a gloved hand by the ECoW to suitable habitat outside of the works area; and
- Vegetation clearance of dense areas should be scheduled to avoid the winter months i.e. when hedgehogs may be hibernating between October to April inclusive, as disturbance

of a hedgehog during hibernation can be fatal. If this is not possible to avoid, an ECoW should perform a search and supervise the vegetation clearance accordingly, and in the event a hedgehog is discovered, works in that area will need to be postponed.

## ENHANCEMENTS

In accordance with the Planning Policy Wales<sup>7</sup>, local policy drivers and recent changes to the legislative context proposals should seek to provide Net Benefits for Biodiversity (NBB).

To enable proposals to deliver the desired benefits, the following measures should be considered for incorporation into the landscaping plans:

- Enhancement of any retained grassland through mowing and removal of arisings to reduce fertility. After 2-3 years, ground should be harrowed, and a seed mix including wildflowers, grasses and sedges of value should be sown. The seed mix should incorporate yellow rattle (*Rhiananthus minor*) to suppress fast growing grasses like meadow foxtail;
- Retention of scrub habitat where possible;
- Inclusion of urban green infrastructure interventions across the development such as rain gardens, attenuation basins; and
- Bird and bat boxes attached to mature retained trees, where this does not increase risk of bird strikes.

## SUMMARY

Greengage was instructed to undertake an updated site walkover to reappraise conditions at site known as Broughton Shopping Centre Northern Quarter in North Wales. The walkover confirmed that conditions at site remain unchanged from the original 2022 PEA, with similar habitat distribution/condition.

This letter report should be read in conjunction with the previous PEA which described key mitigation, compensation, and enhancement actions to enable legislative and policy compliance. These recommendations are still relevant and valid and have all been included and summarised within this report. The PEA identified value for a number of notable and protected species and habitats. Enhancement recommendations are included to deliver NBB.

Key actions should be included within RAM, EMP and CEMP documents for the site which could be secured through planning condition.

We hope the information provided in this letter is clear, should you have any questions regarding the enclosed or require any additional information then please do not hesitate to contact us.

Yours sincerely

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<sup>7</sup> Welsh Government. (2024) Planning Policy Wales. Accessed from: <https://www.gov.wales/planning-policy-wales> on 18 September 2025.



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**For and on behalf of Greengage Environmental Ltd**

Encl.

- Appendix A Habitat Map
- Appendix B Site Photographs
- Appendix C PEA (August 2023)






## APPENDIX A HABITAT MAP

# BROUGHTON SHOPPING PARK NORTHERN QUARTER

 Red Line Boundary

## HABITATS

### Habitats

-  Bramble scrub
-  Mixed scrub
-  Modified grassland

Title: Figure A.1 UK Hab Plan

Drawn by: DP  
Date: 13/01/2026

Reviewed by: LT  
Date: 13/01/2026

Project number: 553496  
Sources: Google Earth





## APPENDIX B SITE PHOTOGRAPHS

*Figure A.1 Rank grassland and scrub edge*



*Figure A.1 Scrub along the eastern boundary*



*Figure A.2 Uniform grassland across the site*



*Figure A.3 Exclusion fencing*



*Figure A.5 Ponds off site known to support Great Crested Newts*



*Figure A.6 The site is bound by roads. Scattered lime trees are present.*



## APPENDIX C PEA August 2023





**Brighter strategies**  
for greener projects



**Client:** Fox Lloyd Jones Ltd  
**Project:** Broughton Shopping Centre  
**Report:** Preliminary Ecological Appraisal

## QUALITY ASSURANCE

| Issue/Revision: | Draft                 | Final                 |
|-----------------|-----------------------|-----------------------|
| Date:           | August 2023           | August 2023           |
| Comments:       |                       |                       |
| Prepared by:    | Daniel Perlaki        | Daniel Perlaki        |
| Authorised by:  | Faye Durkin           | Faye Durkin           |
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Figure C.5 Ponds off site known to support GCN

Figure C.6 The site is bound by roads. Scattered lime trees are present

## 1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Fox Lloyd Jones Ltd of land off Chester Road in Broughton, within the administrative boundary of Flintshire County Council.

This document is a report of this survey and has been produced to inform a planning submission for the site which seeks the development of two new retail/drive-thru units and 30 EV charging bays with associated parking, services yards and landscaping.

This survey aimed to establish the ecological value of this site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

The survey area extends to 1.36 hectares and comprises an undeveloped triangle of land south of Chester Road, to the north of the wider Broughton Shopping Centre. The habitats on site include modified grassland sandwiched between mixed scrub to the western end of the site and bramble scrub to the east. The grassland is rank and has a species-poor sward with mostly ruderal broadleaved species associated with high fertility grassland. The mixed scrub features a diverse mix of woody species and age ranges, whereas the bramble scrub is composed of dense bramble of uniform age and structure.

A data search from Cofnod confirmed that there are no designated sites of statutory or non-statutory importance within 1.45km of the site, and none are considered within the likely zone of impact of the proposed development.

The site is considered to have potential to support the following notable and/or protected species:

- Moderate potential to support foraging and commuting bats;
- High potential to support birds; and
- Low potential to support hedgehog.

The presence of herpetofauna one-way exclusion fencing along the ponds 200m east of the site and the lack of other suitable dispersal routes means the site is considered highly unlikely to support great crested newt, however owing to the confirmed population within these ponds, a Reasonable Avoidance Measures (RAM) statement should be prepared to ensure there are no detrimental impacts upon great crested newt.

A Construction Environment Management Plan (CEMP) should be secured through planning condition and provide detail on surface water runoff management, controls of dust deposition and lighting during the construction phase.

Other mitigation measures include timing of site clearance to avoid impacts upon nesting birds and presence of an Ecological Clerk of Works (ECoW) during site clearance to undertake destructive hand searches of potential hedgehog refugia.

Ecological enhancement measures are recommended with the intention of delivering net benefits for biodiversity. These include:

- 
- Enhancement of any retained grassland through mowing and removal of arisings to reduce fertility;
  - Retention of scrub habitat where possible, and diversification of native woody shrubs through planting;
  - Increase tree canopy cover through tree planting across parking areas and retail units;
  - Inclusion of urban green infrastructure interventions across the development such as rain gardens, attenuation basins, green walls and extensive green roofs; and
  - Integrated bird and bat boxes within the newly constructed buildings integrated within the facades.

Should the recommendations set out within this report be followed, the proposals stand to be in compliance with relevant planning policy and legislation.

## 2.0 INTRODUCTION

Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Fox Lloyd Jones Ltd of land off Chester Road in Broughton, within the administrative boundary of Flintshire County Council.

This document is a report of this survey and has been produced to inform a planning submission for the site which seeks the development of three new retail/drive-thru units and 30 EV charging bays with associated parking, services yards and landscaping.

This survey aimed to establish the ecological value of this site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

### 2.1 SITE DESCRIPTION

The survey area extends to approximately 1.36 hectares and is centred on National Grid Reference SJ349641, OS Co-ordinates 334953, 364153.

The site is an approximately triangular parcel of land in Broughton, North Wales. It is located approximately 5.6km west southwest of Chester and 13.25km north of Wrexham. It is bound to the north by Chester Road (A5104), to the west by a roundabout, the south by an access road and the wider Broughton Shopping Centre and the east by undeveloped scrub, beyond which is pasture grassland.

The site is situated in a mixed context, with agricultural, industrial and residential land uses all within the immediate vicinity, in addition to large farming/forestry estates and parks. Green and blue infrastructure provision is poor in the immediate vicinity of the site, with the exception of small ponds and minor areas scrub and secondary woodland to the east of the site. However, most habitats present in the vicinity of low value agricultural habitats. Beyond the immediate surroundings, the River Dee lies 2.8km north of the site, although the Dee Estuary is over 12km northwest.

### 3.0 METHODOLOGY

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)<sup>1</sup> and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal<sup>2</sup>, in accordance with BS42020:2013: Biodiversity<sup>3</sup>. The overall assessment consisted of:

- Site specific biological information gained from statutory and non-statutory consultation; and
- A site walkover, protected species scoping assessment and UKHAB habitat survey.

The site-specific consultation provided the ecological context for the site survey carried out on the 1st August 2023.

The survey boundary and existing site is shown at Figure A.1.

Greengage undertook the site walkover during overcast weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

#### 3.1 DESK TOP REVIEW

A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website<sup>4</sup>) was undertaken for the site and its vicinity. In addition, a biological records search from Cofnod - North Wales Environmental Information Service were reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the site, to better inform the UKHAB Survey.

#### 3.2 ON SITE SURVEYS

##### Flora

The extent and distribution of different habitats on site were identified and mapped according to the standard UKHAB Survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown at Figure A.1

## Fauna

The PEA Survey specifically included assessments to identify the potential value for notable, rare and protected species at site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.

The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

The species surveyed for included:

### Badger (*Meles meles*)

The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

### Bat Species (*Chiroptera*)

The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's Good Practice Guidelines<sup>5</sup> and methods given in English Nature's (now Natural England) Bat Mitigation Guidelines<sup>6</sup> consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and
- Signs of bat activity or presence.

Definite signs of bat activity were taken to be:

- The bats themselves;

- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak, ash, beech, willow and Scots pine), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

### Great Crested Newt (*Triturus cristatus*)

An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

### Reptiles

The potential for reptile species on site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

### Dormouse (*Muscardinus avellanarius*)

During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

### Water Vole (*Arvicola terrestris*)

Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

### Otter (*Lutra lutra*)

Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints or food remains can also be noted.

### Birds

During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable species.

### Invertebrates

As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

### Biodiversity Action Plan priority species/ Species of Principal Importance

Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

## 3.3 SURVEYORS

Daniel Perlaki, who undertook the survey and prepared this report, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM. Dan has over 5 years' experience in ecology survey and consultancy.

Faye Durkin, who has reviewed this report has a first class BSc (Hons) in Environmental Science and MSc in Environmental Management and Sustainable Development. She is a full member of CIEEM and an Associate member of IEMA. She co-chairs the IEMA Biodiversity and Natural Capital Steering Group and is a member of the IEMA Policy and Practice Committee. She has over 16 years of ecological consultancy experience and is licenced to survey bats and GCN in England and Wales. She has held mitigation licences for bats and GCN and holds a CL31 water vole displacement licence.

This report was written by Daniel Perlaki and reviewed and verified by Faye Durkin who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;



- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

### 3.4 CONSTRAINTS

The PEA was undertaken during an optimal time of year during ideal conditions by a suitably qualified ecologist. It was possible to access all areas of the site.

No significant constraints that stand to impact conclusions drawn in this report therefore presented themselves.

## 4.0 RESULTS

### 4.1 DESK TOP REVIEW

#### Designations

Consultations with the local biological record centre (Cofnod) and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the site or within a 2km radius. The nearest statutory designated site is the River Dee Site of Special Scientific Interest (SSSI), approximately 2.2km north of the site.

Records from Cofnod also identified one non-statutory Wildlife Site within 2km of the site boundary. Wildlife Sites are recognised by LPAs as important wildlife sites and their protection is a material condition in the planning process.

Table 4.1 below gives the locations and descriptions of a selection of the nearest/most relevant local designations.

Table 4.1 Statutory and Non-Statutory Designated Sites within Search Radius

| Site Name                            | Approximate Location | Description  |
|--------------------------------------|----------------------|--|
| Non-Statutory                        |                      |  |
| Mold Junction Triangle Wildlife Site | 1.45km northeast     | Disused railway junction comprising flat cinders and gravel with ditches and dry banks. It has become colonised by silver birch ( <i>Betula pendula</i> ) scrub with patches of coarse grassland and rosebay willowherb ( <i>Chamaenerion angustifolium</i> ). It is a species-rich site with several interesting and uncommon plants such as giant knapweed ( <i>Centaurea macrocephala</i> ), kidney vetch ( <i>Anthyllis vulneraria</i> ), pale toadflax ( <i>Linaria repens</i> ), wild mignonette ( <i>Reseda lutea</i> ) and creeping willow ( <i>Salix repens</i> ). The northern part of the site is coarse grassland with hare's tail clover ( <i>Trifolium arvense</i> ), tall oat-grass ( <i>Arrhenatherum elatius</i> ), wild carrot ( <i>Daucus carota</i> ), squirrel-tail fescue ( <i>Vulpia bromoides</i> ) and scattered buddleja. A good site for butterflies. |

#### Biodiversity Action Plans

UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity.

Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

The following UK BAP priority habitats were present at site or in the immediate vicinity:

- Ponds.

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

### *Flintshire County Council Environment Act - Section 6 Biodiversity Duty Delivery Plan*

In the absence of a Local Biodiversity Action Plan, Section 6 of the Flintshire County Council Environment Act will be deferred to as the guidance document for local biodiversity conservation. It sets out priority habitats and monitors the progress on actions to protect and enhance these habitats, including:

- Grassland and Commons;
- Woodland and Trees; and
- Rural and Urban Green Infrastructure.

### Species Record

The information provided in the biological data search from Cofnod identified records of a number of protected and BAP priority species within 2km search radius of the site. Among others, these include the following species of relevance to the site:

- Birds including kestrel (*Falco tinnunculus*), bullfinch (*Pyrrhula pyrrhula*), linnet (*Linaria cannabina*), reed bunting (*Emberiza schoeniclus*), swift (*Apus apus*), rook (*Corvus frugilegus*), grey heron (*Ardea cinerea*), buzzard (*Buteo buteo*), starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), skylark (*Alauda arvensis*), lapwing (*Vanellus vanellus*) and swallow (*Hirundo rustica*);
- Mammals including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), whiskered/Brandts (*Myotis mystacinus/brandtii*), Daubenton's (*Myotis daubentonii*), natterer's (*Myotis nattereri*), hedgehog (*Erinaceus europaeus*), water vole (*Arvicola amphibius*), badger (*Meles meles*) and hare (*Lepus lepus*);
- Reptiles including slow worm (*Anguis fragilis*);

- Amphibians including great crested newt (*Triturus cristatus*), common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*), palmate newt (*Lissotriton helveticus*) and common toad (*Bufo bufo*);
- Lepidoptera including cinnabar (*Tyria jacobaeae*), blood vein (*Timandra comae*), wall (*Lasiommata megera*), holly blue (*Celastrina argiolus*) and small heath (*Coenonympha pamphilus*);
- Hymenoptera including early bumblebee (*Bombus pratorum*), buff-tailed bumblebee (*Bombus terrestris*), red-tailed bumblebee (*Bombus lapidarius*) and common carder bee (*Bombus pascuorum*); and
- Invasive non-native species including American mink (*Neovison vison*).

The species listed above are primarily those known to be in the area that may be impacted by proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

## 4.2 DETAILED DESCRIPTION OF SITE: HABITATS

The habitats presented across the assessment site consist of the following UKHab categories, as mapped at Figure A.1:

- Mixed scrub (h3h);
- Modified grassland with scattered scrub, tall/tussocky sward, anthills, (g4 10 124 128);
- Line of trees; and
- Bramble scrub (h3d).

### Mixed Scrub

The mixed scrub habitat lies to the west of the site and is composed of a mixture of woody species, the most dominant of which is hawthorn (*Crataegus monogyna*). Also present are blackthorn (*Prunus spinosa*), lime (*Tilia* sp.), bramble (*Rubus fruticosus* agg), alder (*Alnus glutinosa*), maple (*Acer* sp.) and hazel (*Corylus avellana*). Ground-level flora is dominated by rank meadow foxtail (*Alopecurus pratensis*), with frequent creeping thistle (*Cirsium vulgare*).

The scrub transitions through dense creeping thistle to modified grassland habitat at its eastern extent.

The age structure of the scrub is varied, with numerous older lime and hawthorn trees and young saplings present. The main body of the scrub is very dense and impenetrable, however around its edge it is thinner.

### Modified grassland with scattered scrub, tall/tussocky sward and anthills

The main body of the site is modified grassland. Minor scrub encroachment is present along its interface with the scrub habitat, and there are two hawthorn trees within the centre of the grassland. The grassland is rank and unmanaged with a tall, tussocky sward and numerous anthills.

The sward is species poor and is almost entirely dominated by meadow foxtail. Creeping thistle is abundant, and dock (*Rumex obtusifolius*), willowherb (*Epilobium* sp.) and nettle (*Urtica dioica*) are frequent. Occasional species include ragwort (*Jacobaea vulgaris*) and hogweed (*Heracleum sphodylium*) whilst common fleabane (*Pulicaria dysenterica*) and cow parsley (*Anthriscus sylvestris*) were recorded rarely.

Broadleaved herbs are found at low densities owing to the dense grass sward, and there is little spatial variation in the grassland with the only change visible being the increased frequency of nettles towards the western mixed scrub.

### Line of trees

A linear row of six lime (*Tilia* sp.) trees is present along the southern boundary of the site. They are semi-mature and approximately 8m in height, although their canopies do not overlap and they show signs of poor health such as epicormic growth.

### Bramble scrub

The bramble scrub present forms the eastern site boundary and is the start of transition into more developed mixed scrub beyond the site boundary. It is dominated exclusively by bramble growing to approximately 1m height and is uniform in age structure.

## 4.3 DETAILED DESCRIPTION OF SITE: SPECIES

### Badger

There are numerous records for badger within 2km of the site. The site possesses grassland and scrub habitats which are suitable foraging habitats, however there is no woodland on site.

There was no evidence of badgers recorded during the site survey (i.e. mammal paths, badger prints, latrines or foraging evidence), and no evidence of sett excavation was recorded. Whilst the scrub habitat is impenetrable in places and therefore couldn't be inspected for badger signs in detail, there was no evidence of badgers entering the dense scrub.

It is still considered possible that the site forms part of the foraging territory of badgers, although it is used rarely. Badger setts are considered to be **likely absent**.

### Bats

#### Foraging and commuting

There are records for numerous species at the site. The site possesses habitat structure of value for foraging bats and is connected to grassland, scrub and woodland habitat offsite via the line of trees along the southern boundary.

The grassland is not particularly diverse and is unlikely to support large numbers of invertebrate prey. Furthermore, artificial lighting at night is likely to be high owing to the proximity to floodlit shopping centre and main roads.

Overall, the site is considered to have **moderate potential** to support foraging and commuting bats.

### Roosting

There are no trees on site of sufficient age or structure to support features suitable for use by roosting bats. Furthermore, there are no buildings or structures on site. The site is therefore considered to have **negligible potential** to support roosting bats.

### Great Crested Newt

There are numerous records for great crested newts within ponds approximately 200m east of the site, which collectively are known as the Retail Park Newt Reserve. The habitat between the site and these ponds is grassland, scrub and young secondary woodland, all of which are suitable terrestrial habitat for GCN. Furthermore, the habitat present on site is suitable terrestrial habitat for GCN.

However, permanent one-way exclusion fencing has been installed along a pedestrian footpath between the site and ponds, which would inhibit GCN from entering the site, however would allow them to leave the site and return to breeding ponds. The fencing is intact, and has been in place for approximately 10 years, based on historical reporting and vegetation immediately adjacent the fencing is mown short (indicating regular appropriate management as overgrown vegetation could permit GCN to climb the vegetation and access the site). A plan showing the fence location is provided in Appendix B. Given the duration that the fencing has been in place for, and the presence of extensive suitable terrestrial habitat immediately adjacent the pond, it is highly unlikely GCN would attempt to cross the fencing and reach the site, although there is one minor gap of approximately a centimetre in the fencing midway through its length.

Owing to the presence of fencing, the site is considered to have **negligible potential** to support GCN, despite having suitable terrestrial habitat.

### Reptiles

The only records for reptiles are for slow worms in residential gardens over 850m from the site. The site itself possesses scrub habitat which is of some value for reptiles as it provides cover and refuge from predation, however the grassland habitat is rank and tussocky which impairs reptiles from moving across the site. Furthermore, the one-way fencing installed to exclude GCN from re-entering the site would also serve as a barrier to dispersal for reptiles from adjacent suitable reptile habitat. Furthermore, the site is surrounded on all other sides by roads which would also be barriers to dispersal.

The site is, therefore, considered to have **negligible potential** to support reptiles.

### Dormouse

There are no records for dormouse within 2km of the site. Woodland offsite, but connected to the site via scrub habitat and grassland, possesses a dense understorey but is lacking key foraging resources (i.e. hazel). Furthermore, there is no woodland on site, and woodland in the immediate vicinity is limited in size. The site is therefore considered to have **negligible potential** to support dormouse.

## Water Vole and Otter

The nearest watercourse is approximately 270m east of the site. At its nearest point to the site, it is culverted beneath a road with engineered banks. However, it has naturalised banks along much of its length. The water is fast moving and potentially unsuitable for water voles, however there are numerous water vole records within 2km of the site. Whilst this watercourse may support water vole, to reach the site itself water voles would have to leave vegetation cover and cross open grassland for >250m, which is considered highly unlikely.

There are no records of otters within 2km of the site, and there is high levels of anthropogenic disturbance such as noise along the closest watercourse to the site, owing the proximity to the shopping centre. Furthermore, the watercourse near site is poorly connected to wider rivers which would be likely to support fish prey. Finally, this watercourse is 270m from the site, and otters would have to cross open grassland to reach the site in a public area, along busy roads.

Overall, the site is considered to have **negligible potential** to support riparian mammals.

## Birds

The scrub habitat and line of trees have potential to support nesting passerine birds, and likely provide a foraging resource through production of native berries and seeds. The grassland, however, provides too dense of a sward to support notable ground nesting birds, such as skylark, which are known to be in the vicinity of the site, although numerous seed-producing herbs such as dock and nettles may provide foraging resources.

No birds were recorded during the site survey, however there are records for numerous species within 2km of the site.

Overall, the site is considered to have **high potential** to support nesting birds.

## Invertebrates

The scrub and grassland habitat provide some value for pollinators due to provision of nectar and pollen sources, although this is limited by the lack of floral diversity. There is insufficient deadwood within the scrub or line of trees to support notable coleoptera.

The site is considered to have **low potential** to support invertebrates.

## Protected Plant Species

No protected plant species were recorded, and owing to the habitats present on site and condition of the grassland, the site is considered to have **negligible potential** to support them.

## Invasive/Non-native species

No invasive non-native species (INNS) were recorded on the site. Accordingly, they are considered **likely absent**.

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## Other BAP Species

The site has scrub and grassland habitat, and is in close proximity to woodland habitat, which is suitable for supporting hedgehogs, although the site is bound by roads and fences which may act as barriers to dispersal. There are also numerous hedgehog records within 2km of the site. As such, the site is considered to have **low potential** to support hedgehogs.



## 5.0 EVALUATION AND DISCUSSION

### 5.1 BASELINE SUMMARY

The assessment site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.1 below. Comment on further recommendations for each receptor is provided; further detail and discussion can be found at paragraph 5.2 onward:

Table 5.1 Baseline Summary

| Receptor                        | Presence/Potential Presence  | Comments  |
|---------------------------------|------------------------------|---|
| Designated Sites: Statutory     | None within 2km              | Owing to the distance from the nearest statutory designated sites and due to the presence of significant geographical barriers, impacts associated with construction and operation are considered highly unlikely and are not considered further.   |
| Designated Sites: Non-Statutory | 1.45km from site             | As above  |
| Notable/Rare Habitats           | Ponds present 200m from site | Impacts upon the ponds associated with construction or operation of the site are considered highly unlikely owing to the scale of the development. Dust deposition and surface water runoff would have to pass through extensive scrub habitat between the habitat and ponds, therefore detrimental impacts are considered highly unlikely. |
| Foraging and commuting bats     | Moderate potential           | Construction phase impacts will include removal of suitable foraging and commuting habitat and increases to light spill on adjacent suitable habitats. Operational phase impacts are limited to increased levels of lighting upon adjacent habitats of value to foraging and commuting bats.  |
| GCN                             | Negligible potential         | Despite the presence of the exclusion fencing, as a precaution it is recommended that an ecologist undertakes a torchlight survey of terrestrial habitat prior to site clearance.   |

| Receptor          | Presence/Potential Presence | Comments   |
|-------------------|-----------------------------|--|
| Birds             | High potential              | <p>The scrub habitat is likely to support nesting birds, although the grassland habitats are of negligible nesting value.</p> <p>Potential construction phase impacts include destruction of nests/killing of birds during site clearance and loss of foraging/nesting resources.</p> <p>There are no foreseeable operational phase impacts.</p> |
| Other BAP species | Low potential               | <p>Site preparation and clearance has the potential to result in death or injury of hedgehogs and will result in loss of suitable habitat.</p>   |

## 5.2 DISCUSSION AND RECOMMENDATIONS

Discussion is provided below on the key ecological receptors that stand to be impacted/benefit from proposed works; high level commentary on appropriate mitigation, compensation and enhancement actions is also provided.

An Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) should be produced and implemented for the site providing greater detail on the below, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

### Designated sites

#### Notable/Rare habitats

Despite construction phase impacts being highly unlikely upon adjacent habitats (ponds), a CEMP should be produced to detail control measures for dust deposition and surface water runoff into adjacent habitats.

### Bats

#### Foraging and Commuting

The loss of foraging and commuting habitat should be compensated for through appropriate compensatory planting. This should feature native shrubs and trees planted around the site perimeter to mimic the scrub habitat adjacent the site and provide habitat structure and a visual screen to light spill from within the site.

Lighting design for the proposed development should follow best practice guidance set out by the Bat Conservation Trust and Institute of Lighting Professionals<sup>7</sup>. - This should include avoiding light spill on

adjacent habitat suitable for foraging and commuting bats, minimising the duration of illumination of external light fittings through appropriate controls, use of cowls and hoods to ensure lighting is directional and aimed only at areas where required and using the minimum lux levels possible.

## GCN

It is reasonable to assume that GCN are not associated with the site given the presence of roads and exclusion fencing. However, given the high number of records of GCN within the vicinity of the site and the presence of a small gap in the fencing (see appendix B for site photos), it is recommended that the proposed development proceed under a Reasonable Avoidance Measures (RAM) Method Statement. Suitable RAM would include cutting vegetation down to 10cm height to allow any amphibians and small mammals to exit the site via their own volition via the one-way fence. Clearance should be directional working towards the one-way fencing. Suitable weather constitutes is 5 degrees overnight minimum.

## Birds

In order to avoid impacts upon nesting birds associated with construction, clearance of any scrub habitat and works to trees should only be undertaken outside of the nesting bird season, which is taken to run from March to August (inclusive). Once this is undertaken, the construction site should be managed to reduce the likelihood of nesting throughout the construction period.

Compensatory scrub planting should be planted around the site periphery, mimicking scrub habitat adjacent the site. Native shrubs such as hawthorn, blackthorn and elder should be incorporated. This will provide nesting opportunities in addition to foraging resources. Any grassland habitats proposed on the site should also incorporate diverse forbs within the sward to provide seed sources.

The proposed new buildings should also incorporate integrated bird boxes suitable for a range of notable species to compensate for the loss of nesting opportunities associated with tree and scrub removal.

## BAP Species

Site clearance of grassland and scrub habitats has potential to result in the death of hedgehogs. Scrub habitat has the potential to support hibernation sites utilised in winter in addition to refuge during the active period for hedgehogs, whereas the grassland areas provides foraging opportunities. In order to reduce the likelihood of detrimental impacts upon hedgehogs, torchlight surveys should be undertaken at the site the night prior to scheduled site clearance. Any hedgehogs identified during torchlight surveys should be relocated to scrub habitat beyond the site boundary to the east. Furthermore, during site clearance an Ecological Clerk of Works (ECoW) should be present to inform the site team of ecological risks, and to undertake destructive searches of potential refugia for hedgehogs.

## Biodiversity Enhancements

In accordance with the Planning Policy Wales, local policy drivers and recent changes to the legislative context, (Appendix C), proposals should seek to provide net benefits for biodiversity.

To enable proposals to deliver the desired benefits, the following measures should be considered for incorporation into the landscaping plans:

- Enhancement of any retained grassland through mowing and removal of arisings to reduce fertility. After 2-3 years, ground should be harrowed and a seed mix including wildflowers, grasses and sedges of value should be sown. The seed mix should incorporate yellow rattle (*Rhiananthus minor*) to suppress fast growing grasses like meadow foxtail;
- Retention of scrub habitat where possible, and diversification of native woody shrubs through planting of rowan (*Sorbus aucuparia*), elder (*Sambucus nigra*) and guelder rose (*Viburnum opulus*);
- Increase tree canopy cover through tree planting across parking areas and retail units;
- Inclusion of urban green infrastructure interventions across the development such as rain gardens, attenuation basins, green walls and extensive green roofs; and
- Integrated bird and bat boxes within the newly constructed buildings integrated within the facades.

## 6.0 SUMMARY & CONCLUSION

Greengage was commissioned by Fox Lloyd Jones Ltd to undertake a PEA of a site known as Broughton Shopping Centre in North Wales in order to establish the ecological value of this site and its potential to support notable and/or legally protected species.

The PEA identified value for a number of notable and protected species and habitats.


Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance (see context at Appendix D), aiming to achieve net gains in biodiversity for the site.

Key actions should be included within RAM, EMP and CEMP documents for the site which could be secured through planning condition.

## APPENDIX A SITE PLAN AND HABITAT MAP




*Figure A.1 Site plan and habitat map*

# BROUGHTON SHOPPING PARK

 Red Line Boundary

## HABITATS

### Habitats

-  Bramble scrub
-  Mixed scrub
-  Modified grassland

### Hedgerows

-  Line of Trees (w1g6NE2)

## BASE MAPS

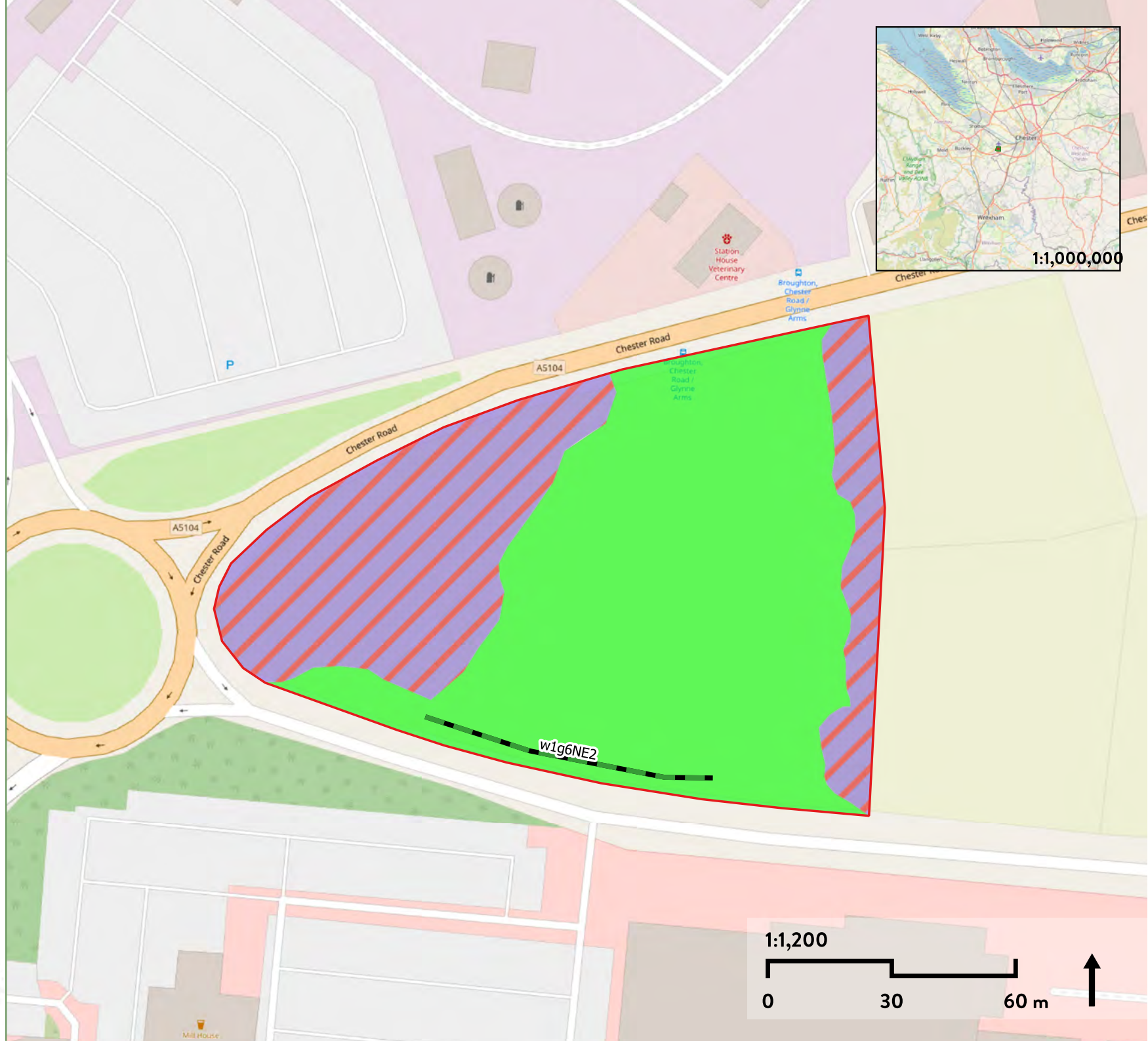
OSM Standard

Title: Appendix A - UK HAB Plan

Drawn by: DP  
Date: 28/09/2023

Reviewed by: FD  
Date: 28/09/2023

Project number: 552445  
Sources: OSM





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## APPENDIX B HERPETOFAUNA FENCING LOCATION



# BROUGHTON SHOPPING PARK

-  Red Line Boundary
-  Herpetofauna fencing

Title: Appendix B - Herpetofauna fencing plan

Drawn by: DP  
Date: 28/09/2023

Reviewed by: FD  
Date: 28/09/2023

Project number: 552445  
Sources: OSM





## APPENDIX C SITE PHOTOGRAPHS

*Figure C.1 Rank grassland and scrub edge*



*Figure C.2 Scrub along the eastern boundary*





Figure C.3 Uniform grassland across the site



Figure C.4 Herpetofauna exclusion fencing with minor gap highlighted





*Figure C.5 Ponds off site known to support GCN*



*Figure C.6 The site is bound by roads. Scattered lime trees are present*



## APPENDIX D RELEVANT LEGISLATION AND POLICY

### D.1 LEGISLATION

Current key legislation relating to ecology includes The Environment Act<sup>8</sup> Wildlife and Countryside Act 1981 (as amended)<sup>9</sup>; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')<sup>10</sup>, The Countryside and Rights of Way Act 2000 (CRoW Act)<sup>11</sup>, and The Natural Environment and Rural Communities Act, 2006<sup>12</sup>.

#### The Environment (Wales) Act 2016

Part 1: Sustainable management of natural resources enables Wales' resources to be managed in a more proactive, sustainable and joined-up way.

Section 6 under Part 1 of the Environment (Wales) Act introduced an enhanced duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales.

The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. To follow the S6 duty public authorities should embed the consideration of biodiversity and ecosystems into their early thinking and business planning, including any policies, plans, programmes and projects, as well as their day to day activities.

#### The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)<sup>13</sup>, and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')<sup>14</sup>, and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')<sup>15</sup> into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

## Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats<sup>16</sup> (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

## The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

## The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan<sup>17</sup> (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework<sup>18</sup> (and Biodiversity 2020 strategy<sup>19</sup> in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020<sup>20</sup> and EU Biodiversity Strategy (EUBS)<sup>21</sup>, this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

## Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the



government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of Species of Principal Importance for Nature Conservation.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

## Legislation Relating to Nesting Birds

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

## Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2019, which transposes the Habitats Directive into UK law.

Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and

- Intentionally or recklessly obstruct access to a bat roost.

## Legislation Relating to Reptiles

All species of reptile native to the UK are protected to some degree under national and/or international legislation, which provides mechanisms to protect the species, their habitats and sites occupied by the species.

Sand lizards and smooth snakes are European protected species and are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 and Regulation 43 of the Conservation of Habitats and Species Regulations 2019. However, these species are rare and highly localised. Their occurrence is not considered as relevant in this instance, as the ranges and specialist habitats of these species do not occur at this site.

The remaining widespread species of native reptiles (adder, grass snake, slow worm and viviparous lizard) are protected under part of Section 9(1) and all of Section 9(5) of the Wildlife and Countryside Act 1981. They are protected against intentional killing and injury and against sale, transporting for sale etc. The habitat of these species is not protected. However, in terms of development, disturbing or destroying reptile habitat during the course of development activities while reptiles are present is likely to lead to an offence under the Wildlife and Countryside Act 1981. It is therefore important to identify the presence of these species within a potential development site. If any of these species are confirmed, all reasonable measures must then be taken to ensure the species are removed to avoid the threat of injury or death associated with development activities.

Each species of native reptile has specific habitat requirements but general shared features include a structurally diverse habitat that provides for shelter, basking, foraging and hibernating.

All reptiles are BAP species and as such are also of material consideration in the planning process due to the NPPF.

## Legislation Relating to Great Crested Newts

Great crested newts are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the great crested newt a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a great crested newt;
- Possess or control and live or dead specimen or anything derived from a great crested newt (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and



- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a great crested newt;
- Deliberately disturb a great crested newt;
- Damage or destroy a breeding site or resting place of a great crested newt; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead great crested newt or any part of a great crested newt.

## D.2 PLANNING POLICY

### National

#### Planning Policy Wales

Planning Policy Wales sets out the Welsh Government's planning policies at National Level, setting out responsibilities of local authorities in respect of planning and development. It states:

*The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems.*

*Development plan strategies, policies and development proposals must consider the need to:*

- *support the conservation of biodiversity, in particular the conservation of wildlife and habitats;*
- *ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;*
- *ensure statutorily and non-statutorily designated sites are properly protected and managed;*
- *safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and*
- *secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.*

*Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.*

*In doing so planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:*

- *diversity between and within ecosystems;*

- *the connections between and within ecosystems;*
- *the scale of ecosystems;*
- *the condition of ecosystems including their structure and functioning; and*
- *the adaptability of ecosystems.*

*In fulfilling this duty, planning authorities must have regard to:*

- *the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;*
- *the SoNaRR, published by NRW; and*
- *any Area Statement that covers all or part of the area in which the authority exercises its functions.*

*Planning Authorities should also refer to up to date ecological survey information (where appropriate).*

### Flintshire Local Development Plan<sup>22</sup>

#### *Policy EN2 Green infrastructure*

Development proposals will be required to protect, maintain and enhance the extent, quality and connectivity of the green infrastructure network, including designated and non-designated green spaces (as shown on the proposals maps and listed in the table below), and where appropriate: a. create new green infrastructure linkages from the proposed development to the existing local network; b. fill in gaps in the existing network to improve connectivity. Where the loss or damage of existing green infrastructure is unavoidable, appropriate mitigation and compensation will be required.

#### *Policy EN6: Sites of Biodiversity and Geodiversity Importance*

Development will not be permitted that would result in an adverse effect on the integrity of sites of international nature conservation importance. Proposals where adverse effects on site integrity cannot be ruled out would not be supported.

Development likely to impact the special features of a Nationally Designated Site will only be granted in exceptional circumstances where appropriate compensation can be provided.

Development proposals that would have a significant adverse effect on locally designated sites or site with other biodiversity and / or geological interest, including priority species, will only be permitted where:

- a. it can be demonstrated that the need for the development outweighs the biodiversity or geological importance of the site; and
- b. it can be demonstrated that the development cannot reasonably be located elsewhere; and
- c. any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall biodiversity value of the area. Where this is not feasible compensation measures designed to create, restore and enhance biodiversity must be provided.

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Development that results in the restoration, enhancement and creation of habitats will be supported especially where this promotes the resilience of ecosystems.

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