

Ecological Impact Assessment

BE-1081.1b

**Manor Gardens, off Manor Way, Staincliffe,
Batley, WF17 7BX**



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Executive Summary

Bagshaw Ecology Ltd have been requested by Hamm-Damm Foundation to undertake an Ecological Impact Assessment of the land at Manor Gardens, off Manor Way, Staincliffe, Batley WF17 7BX, in relation to an application for planning. The development proposals are to construct four new temporary single-storey timber buildings and associated landscaping.

The site survey found the habitat within the majority of the site to be composed of well-maintained allotments and areas of amenity grassland with some areas of tall ruderal vegetation towards the borders. As these habitats are of **Low** ecological value it is not anticipated that there will be significant ecological impacts on the site or the surrounding area.

There were three buildings on the site which consisted of two polytunnels and a metal storage crate. Due to a lack of potential roost features, all of the buildings were considered to have negligible potential for roosting bats. Therefore, it is not anticipated that roosting bats will be affected by the development proposals and no further surveys or mitigation with regards to bats are recommended.

The site is suitable for use by foraging hedgehogs, which may be impeded with the addition of fences. It is recommended suitable mitigation is used to facilitate hedgehog movement through the site.

It is recommended that any tree removals avoid the bird nesting season (1st March – 31st August). If works are required within this period, a bird survey of the site should be carried out within 48 hours prior to the commencement of works, and works may only commence if it has been established that nesting birds are not present.

It is recommended that the ecological value of the site is enhanced through the incorporation of bird and hedgehog boxes and soft planting into the development proposals.

1. Introduction

1.1. Background

Bagshaw Ecology Ltd have been requested by Hamm-Damm Foundation to undertake an Ecological Impact Assessment of the land at Manor Gardens, off Manor Way, Staincliffe, Batley WF17 7BX, hereafter referred to as 'the site'.

The purpose of the report is to identify the habitat types on the site, along with the presence or absence of any protected or notable species. The ecological impact of any proposed development is assessed, and mitigation, management and aftercare proposals are suggested when appropriate.

1.2. Site Details

The site located at grid reference SE 23599 23614 and is accessed north off Manor Way. The site is bound by residential properties on all aspects.

The site is approximately 0.4 ha in size and comprised of an area of allotments and polytunnels.



Figure 1.1 Aerial imagery of site and surrounding area (Google Earth Pro, 2019)

1.3. Development Proposals

The development proposals are to construct four new temporary single-storey timber buildings and associated landscaping.

2. Legislative Context

2.1. Legislation

The Wildlife and Countryside Act 1981 (As Amended), makes it an offence to:

- Deliberately or recklessly injure, kill or capture any animal protected under Schedule 5 of the act.
- Deliberately or recklessly kill, injure or take any wild bird; to take, damage or destroy the nest of any wild bird while occupied or being built, or to take or destroy the egg of a wild bird. Additional protection is afforded to bird species listed under Schedule 1 of the Act.
- Intentionally pick, uproot or destroy any wild plant included in Schedule 8 of the Act.

The Conservation of Habitats and Species Regulation 2017 makes it an offence to deliberately capture, kill or disturb any animal protected under Schedule 2 of the regulations. It is also an offence to damage or destroy a breeding site or resting place of an animal, even if the animal is not present at the time.

2.2. Policy

The UK Biodiversity Action Plan (UKBAP) includes a list of 943 national priority species and 56 habitats of principal importance, with all species and habitats having specific action plans defining the measures required to ensure their conservation. Although the UKBAP has since been superseded by the UK-Post 2010 Biodiversity Framework and a focus on County Biodiversity Plans, it remains a useful point of reference.

Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 required that any public bodies take into consideration any species and habitats listed in the UKBAP when implementing their duty and exercising any normal functions.

The National Planning Policy Framework (NPPF) states that planning decisions should aim to protect or enhance biodiversity and conservation interests, and where possible any development should aim to increase net gains in biodiversity.

3. Methods

3.1. Ecological Data Search

As the site is a small area of cultivated garden and due to the small scale of the development, in accordance with CIEEM’s guidelines on Preliminary Ecological Appraisal (CIEEM, 2017), a full consultation with the local biological records centre was not undertaken.

The Department for Environment, Food and Rural Affairs’ (DEFRA) Magic Maps website was consulted as to any land-based designations and priority habitats within a 1km radius of the site.

Aerial imagery was assessed using OS maps and Google Earth Pro to give an appraisal of the surrounding land use.

3.2. Phase 1 Habitat Survey

The habitat survey and mapping exercise was carried out in suitable weather conditions on the 3rd October 2019.

The survey was undertaken by Amy Reddick BSc (Hons) MSc, an ecological consultant who is an associate member of CIEEM, and who holds a Natural England class 2 licence to survey bats.

The study area was surveyed in accordance with JNCC (2010) guidelines. Habitats were classified into hierarchical codes, and a Phase 1 Habitat map was produced.

Habitats and species present on or adjacent to the site were assessed using CIEEM’s (2018) guidelines. Ecological features were classed as being of either international, national, regional, district, local, low or of negligible importance (see table 3.1).

Table 3.1 Importance of ecological features

Value of feature	Key examples
International	Internationally designated sites (SPA, pSPA, SAC, cSAC, Ramsar site, Biogenetic Reserve), or an area which meets designation for such sites; Internationally significant and viable areas of a habitat listed in Annexe 1 of the Habitats Directive; Any regularly occurring, globally threatened species; A regularly occurring population of an internationally important species, which is threatened or rare in the UK.
National	A nationally designated site (SSSI, NNR, LNR), or an area which meets designation for such sites; A regularly occurring significant number/population of a nationally important species (e.g. listed on the Wildlife and Countryside Act 1981 (as amended)); A feature identified as being of critical national importance.
Regional/County	Viable areas of key habitat identified in the regional or county BAP; A regularly occurring significant population/number of any species important at regional/county level; Sites of conservation importance which exceed the district selection, but which fall short of SSSI selection guidelines.
District	Areas of habitat identified in District/City/Borough BAP; Sites that the designating authority has determined meet the published ecological selection criteria for designation; Sites/features which are scarce within the District/City/Borough; A regularly occurring significant population/number of any species important at District/City/Borough level.
Local	Areas identified in a Local BAP; Sites/features which are scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context (e.g. species-rich hedgerows); Any populations, species or habitats of local importance.
Low/Site	Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.

3.3. Bat Survey

The survey was based upon methodologies prescribed by Collins (2016), Mitchell-Jones (2004) and Mitchell-Jones and McLeish (2004). This involved an inspection of the exterior and interior of the building. Any structural features with potential for use by roosting bats were recorded and any suitable access points were identified. Any direct evidence of bats, such as scratch marks, oil stains, droppings and feeding remains were also identified.

Taking account of the structural features of the building, the surrounding habitat, buildings were assigned a level of roost suitability based upon professional judgement (see table 3.1).

Table 3.2 Bat roost suitability

Bat Roost Suitability Class	Description
Confirmed presence	Bat presence confirmed during the scoping survey
High	Buildings that have many areas suitable for roosting which are obviously suitable for use by a larger number of bats including maternity colonies.
Moderate	Buildings with a smaller number of areas suitable for roosting, but still supporting feature that could be attractive to bats and potentially support maternity colonies.
Low	Buildings with limited roosting opportunities but which could be used on a sporadic or occasional basis by a low number of bats, but which are unsuitable for maternity roosts.
Negligible	Buildings which appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids and/or absence of suitable access points.

3.4. Protected and Notable Species

An assessment of the site was undertaken as to the presence of any other protected or notable fauna.

A search of the site was undertaken for signs of protected mammal species (namely those protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and the Protection of Badgers Act 1992), including badger *Meles meles*, otter *Lutra lutra* and water vole *Arvicola amphibius*.

An assessment of the site was undertaken for species of reptiles and amphibians (including great crested newts).

An assessment of the site was undertaken for birds, including nesting birds and bird species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

An assessment of the site was undertaken for its potential for invertebrates, although a detailed invertebrate assessment was not carried out as part of the survey.

4. Results

4.1. Constraints

The site survey was conducted outside the optimum period for Phase 1 Habitat Surveys. However, some species are only visible at certain times of the year and may not have been present during the survey.

4.2. Designated Sites

A search on Magic Maps (DEFRA, 2019) identified seven Deciduous Woodland Priority Habitats within 1km of the site, with the closest situated 770m to the east of the site.

Magic Maps (DEFRA, 2019) no records of internationally or nationally designated sites within 2km of the site.

4.3. Habitats

The surrounding land use is predominantly urban and residential. Tree cover in the surrounding area is low, with few garden or street trees offering limited connectivity with any nearby semi-natural habitats. Terrestrial connectivity to the site is heavily constrained by nearby roads and residential developments.

The habitats on the site comprised well-maintained amenity grassland (**J1.2**) and allotments (**J1.1**) with raised vegetable plots and cultivated flower beds. A variety of vegetables, herbs, fruits and flowers including strawberry *Fragaria × ananassa*, tomato *Solanum lycopersicum*, rapeseed *Brassica napus*, spearmint *Mentha spicata*, parsley *Petroselinum crispum* and coriander *Coriandrum sativum*.

To the northeast and northwest were unmanaged areas of grassland and tall ruderal vegetation (**C3.1**), species consisted of the following: false oat grass *Arrhenatherum elatius*, annual meadow grass *Poa annua*, common sow thistle *Sonchus oleraceus*, ragwort *Jacobaea vulgaris*, common sorrel *Rumex acetosa*, groundsel *Senecio vulgaris*, creeping thistle *Cirsium arvense*, evening primrose *Oenothera biennis*, common nettle *Urtica dioica*, rosebay willowherb *Chamaenerion angustifolium*, red clover *Trifolium pratense*, herb Robert *Geranium robertianum*, hedge bindweed *Calystegia sepium*, broadleaved dock *Rumex obtusifolius* and cleavers *Gamium aparine*. Some small amount of Himalayan balsam *Impatiens glandulifera* were observed to the west of the site.

Several trees were scattered (**A3**) along the west boundary and throughout the allotments, these included Japanese cherry *Prunus serrulata*, common lime *Tilia x europaea*, hazel *Corylus avellana*, crack willow *Salix fragilis*, sycamore *Acer pseudoplatanus* and apple *Malus domestica*.

A map showing the habitats on the site can be viewed in **Appendix 2: Phase 1 Habitat Map**.

4.4. Bat Scoping Survey

DEFRA (2019) holds one record of a granted European Protected Species License for bats within 1km of the site., EPSM2011-3454 which allowed the destruction of a common pipistrelle resting place. The licence start date was the 28th of September 2011 to the 1st of December 2012. The approximate location the licence applied to was located 730m southwest of the site.

Three artificial structures were situated on the site. Two polytunnels used to grow fruit and vegetables which were constructed from clear plastic with metal frames. These had no suitable roosting features and were considered to have negligible potential for roosting bats.

To the southeast was a small storage crate constructed of metal. This had no separate roof void or suitable roosting features and was also determined to have negligible potential for roosting bats.

No features suitable for roosting bats were observed within the trees on the site. As such, all trees are considered to have negligible potential for roosting bats.

Connectivity to the site is limited by roads and street lighting in the immediate surrounding area. The trees to the west of the site provide foraging opportunities for generalist species of bats, namely common pipistrelles *Pipistrellus pipistrellus*, however it is considered unlikely the site is utilised by a substantial number of bats.

4.5. Other Mammals

The site provides suitable habitat for commuting and foraging hedgehogs *Erinaceus europaeus* although no signs of hedgehogs were observed during the survey.

No signs of any protected or notable mammal species were observed during the site survey.

4.6. Reptiles and Amphibians

DEFRA (2019) holds no records of granted European Protected Species Licences for great crested newts within 1km of the site.

A search on aerial imagery (Google Earth Pro, 2019) revealed no ponds within 250m of the site. There may be ponds within residential gardens which could not be viewed on aerial imagery.

The site provides limited terrestrial habitat for reptile and amphibian species, due to the constraining roads and residential development limiting the terrestrial connectivity.

4.7. Bird Species

The trees on site provide suitable habitat for nesting birds.

4.8. Invertebrates

The site provides suitable habitat and pollination opportunities for generalist species of invertebrates.

5. Impact Assessment

5.1. Habitats

The development proposals will result in the loss of small areas of amenity grassland, tall ruderal vegetation and cultivated allotments. These habitats are considered to be of **low/site** value, and therefore their removal is not considered to have any significant ecological impacts. The site is due to be landscaped by community projects with further soft planting. If the species planted are of benefit to British wildlife this will enhance the ecological value of the site.

5.2. Bats

The buildings on the site consisted of two polytunnels and small storage container. It is considered that these have negligible potential for roosting bats therefore no impacts to roosting bats are anticipated due to the development proposals.

The trees on the site do not provide suitable habitat for roosting bats. The site provides suitable habitat for foraging and commuting species of bats but as this is restricted to species with generalist foraging strategies, it is not anticipated there will be impacts to foraging bats.

5.3. Other Mammals

The site provides suitable habitat for hedgehogs, which are identified as a Priority Species within Kirklees. If fences are used within the proposed landscaping this could have negative effects on hedgehog migration through the landscape.

There are no foreseeable impacts of the development proposals upon any other notable or protected mammal species.

5.4. Reptiles and Amphibians

Terrestrial connectivity within the surrounding area is severely constrained by roads and the habitats on site were considered suboptimal for reptile or amphibian species. It is therefore not anticipated that the development proposals will impact upon amphibian or reptile species.

5.5. Birds

The site provides suitable habitat for nesting birds, and any tree removals have the potential to impact upon nesting birds, if undertaken during bird nesting season (1st March – 31st August inclusive).

5.6. Invertebrates

There are no foreseeable impacts of the development proposals upon any notable invertebrate species. The development proposals will have positive effects upon pollination resources for invertebrates provided species planted are beneficial to British wildlife.

6. Conclusion and Recommendations

6.1. Avoidance of Ecological Impacts

To aid the movement of hedgehogs through the site it is recommended that hedgerows are used to divide sections of the site, or if fences are to be used, that holes are cut into fences approximately 15x15cm in size.

It is recommended that any tree removals avoid the bird nesting season (1st March – 31st August inclusive). If this is not possible, a nesting bird check should be carried out within 48 hours prior to the commencement of works, and works should only commence if it has been established that nesting birds are not present.

There are no foreseeable impacts of the development proposals upon any further protected or notable species. In the unlikely event that any protected species such as bats, reptiles or amphibians are identified during works, all works should cease, and a suitably qualified ecologist should be consulted.

6.2. Mitigation and Ecological Enhancement

In accordance with the NPPF it is recommended the ecological value of the site is enhanced, this should include incorporating nesting bird habitat into the development proposals. Two bird boxes should be fixed onto trees on the site. These should consist of Schwegler 1B bird boxes with 32mm holes. Boxes should be hung from trees at a height of at least 1.5m or higher with clear flight paths to the entrances.

To provide additional habitat for hedgehogs on the site it is recommended a hedgehog box is installed on the site. This should be situated within a low traffic area of the site, preferably close to nearby cover such as shrubs or tall vegetation.

Further planting is to be included within the development. To enhance pollination opportunities for invertebrates on the site it is recommended that this consist of a mixture of native British wildflowers and ornamental plants known to benefit British wildlife (as specified by the Royal Horticultural Society (Baines, 2016) and consist of at least 50% native species. Ornamental species without proven benefits to wildlife may still be planted provided they make up less than 20% of the overall mixture and are not listed as invasive by Schedule 9 of the Wildlife and Countryside Act 1981.

Table 6.1 Species recommended for soft planting

Native	Non-native
Cornflower <i>Centaurea cyanus</i>	Christmas rose <i>Helleborus niger</i>
Red campion <i>Silene dioica</i>	Sunflower <i>Helianthus annuus</i>
Yellow toadflax <i>Linaria vulgaris</i>	Poached egg plant <i>Limnanthes douglasii</i>
Corn marigold <i>Chrysanthemum segetum</i>	English lavender <i>Lavandula angustifolia</i>
Ragged robin <i>Lychnis flos-cuculi</i>	Sweet bergamot <i>Monarda didyma</i>
Globe flower <i>Trollis europaeus</i>	Grape hyacinth <i>Muscari armeniacum</i>
Teasel <i>Dipsacus fullonum</i>	Pot marigold <i>Calendula officinalis</i>
Marjoram <i>Origanum vulgare</i>	Spring crocus <i>Crocus vernus</i>

To enhance the ecological value of the site it is recommended that the Himalayan balsam is removed. This should be achieved by repeated cutting or mowing below the lowest node to stop regeneration, or by hand pulling, as plants are shallow rooted. Programmes should be undertaken in April or early May to prevent seed distribution. As Himalayan balsam is an invasive species, plants should be destroyed on site or transported to suitable location by a specialist contractor.

6.3. Lifespan of Survey Findings

In accordance with CIEEM's guidelines (CIEEM, 2019), the findings of this report are considered valid for a further 18 months (until October 2020).

7. References

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8. Appendices

Appendix 1: Photographs



Plate 1. Overview of the site



Plate 2. Overview of the site



Plate 3. Polytunnels on site



Plate 4. West of the site



Plate 5. Tall ruderal to the east



Plate 6. Storage container on site



Plate 7. Polytunnel on site



Plate 8. Amenity grassland on site



Plate 9. Allotments on site



Plate 10. Tall ruderal on site



Plate 11. Tall ruderal on site



Plate 12. Tall ruderal on site

Appendix 2: Phase 1 Habitat Map

Project:	Manor Way
Drawn by:	Amy Reddick
Date:	27/11/2019

Not to scale

Key:

-  Site boundary
- JNCC Phase 1 Habitat:
 -  A3.1 - Scattered trees
 -  C3.1 - Tall ruderal
 -  J1.1 - Arable allotments
 -  J1.2 - Amenity grassland
 -  J3.6 - Buildings
 -  J4 - Bare ground

