T4 ECOLOGY LTD

ECOLOGY CONSULTANCY SERVICES, MALDON, ESSEX

Preliminary Ecological Appraisal

Proposed Sail School Facilities

Alton Water

Suffolk

IP9 2RY

Prepared for:

Royal Hospital School

January 2022

T4ecology Ltd

Heybridge
Maldon
Essex

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1. Survey Finding and Recommendations Summary

In summary, the proposed development area comprises a section of managed amenity grass adjacent to Alton Water reservoir. The application site is situated on the southern shore of Alton Water on a peninsula that contains access road, car parking, cycle hire, café, visitor centre, boatyard/storage. As such, the site and surrounds are subject to management and disturbance as would be reasonably expected in such a land use context.

The statutory designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory designated locations. It is concluded that the proposal would not be likely to have any adverse impact upon statutory designations. The site does bound Alton Water County Wildlife Site (non-statutory designation). Accordingly, given the small scale of the proposal, precautionary actions have been advised in section 5.2 in respect of managing the construction phase.

No trees/hedgerows with bat roosting potential would be lost to the development proposal. An approx. 19m section of the western hedgerow would be removed to provide access to the building/service installation. However, this is a young managed low hedge, and the section could be suitably re-planted/replaced as part of the proposal, and additional planting is recommended where appropriate within the landscaping. As such, potential commuting/foraging networks would be retained/enhanced.

Given the location adjacent to a reservoir, it is considered that use of a bat considerate lighting scheme is essential in respect of both the construction and completed phases of the development.

Provided the above and the scope of ecological enhancement recommendations identified in section 5.2 are implemented, the proposal would be unlikely to have an adverse impact upon bat behaviours, and that any such behaviours would continue and be enhanced post development through use of appropriate enhancement measures.

It is not considered reasonably likely that reptile or great crested newt species would be adversely affected by the development proposals.

No active or inactive badger setts were found. General appropriate precautionary measures for the construction phases have been advised in section 5.2.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2 of the report.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section

5.2 are fully adhered to. Where necessary, appropriately worded conditions should be placed upon any consent granted in order to ensure appropriate measures are followed.

Contents

2. Introduction

2.1. Phase 1 Brief

T4 Ecology Ltd was commissioned by The Royal Hospital School to undertake an ecological assessment of land at Alton Water, Suffolk.

This report contains the findings of a Preliminary Ecological Appraisal-PEA. The purpose of a PEA is to identify the potential for presence of protected species on a site, in line with UK law and the requirements of The National Planning Policy Framework (NPPF)(2021). The brief of the ecological survey was to assess the habitats found on site and identify the potential for presence on site of protected species.

The site-based element is supported by a desktop study undertaken to identify presence of Statutory/National/Local designations or protected species within the vicinity (up to a 5KM radius) of the site. The final part of the project brief was to identify and make recommendations as appropriate for any further surveys required to determine presence/absence of protected species on site if the survey determined that presence of a protected species on site was considered to be reasonably likely.

2.2. Development Proposals & Planning Context

Proposals are for the installation of sail school facilities and associated services adjoining an existing boat yard. The following proposal plan has been viewed as part of this assessment:

- Proposal Plan refs: 210616 – 03 to 05– Architectural Management

Given availability of a project description, it was possible to undertake an assessment of any potential impacts resultant from the proposal and recommend further works/appropriate mitigation/enhancements for inclusion as appropriate in section 5.2 of this report.

2.3. Scope of Survey

The purpose of this report is to provide an independent opinion of the likely presence of protected species on a site to inform the client of their obligations, and to assist the Local Planning Authority (LPA) in their determination of a planning application.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. This PEA does not constitute a full botanical survey or a Phase 2 preconstruction survey for Japanese Knotweed. In this regard, this survey provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. Additional surveys may be required if it is considered reasonably likely a protected species may be present.

The survey presents a snapshot in time, and therefore makes an assessment purely of what was seen at the time the survey was undertaken. The PEA does not therefore make any retrospective analyses.

This report has a maximum validity of 18 months from the date which the survey was undertaken. Beyond 18 months, it is unsuitable for use in planning and should be rejected by the Local Planning Authority.

3. Methodology

3.1. Survey

Habitats on site were recorded in accordance with the general principles and methods provided in the Handbook for Phase 1 Habitat Survey, JNCC 1993. The survey methodology involves undertaking a site visit to gain an understanding of the site ecology and surrounding characteristics. During the site visit the recording and mapping of habitat types and ecological features present on site is undertaken, including the identification of the main species present. The potential for presence of protected species is assessed as part of the overall methodology, and further advice/surveys recommended as considered appropriate based on the evidence obtained.

The survey works were undertaken in accordance with Guidelines for Preliminary Ecological Appraisal produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) in December 2017.

Methods are also in accordance to the general principles contained within British Standards Institute (BSI) BS42020 – Biodiversity-Code of Practice for Planning & Development.

A habitat plan is included as Annex 3. Photographs are included within Annex 2.

3.1.1. Survey Timings and Conditions

The survey was undertaken by Consultant Ecologist Peter Harris BSc (hons) MCIEEM FRGS on the 12th January 2022. Weather conditions were dry with 10% cloud cover, and an ambient air temperature of 2^{O}C.

Peter Harris is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM) and a Fellow of The Royal Geographical Society (FRGS). The surveyor is licenced by Natural England for surveying great crested newts. The surveyor is an ecologist with over 14 years of experience, and has been involved in a wide range of projects from single dwelling developments to large strategic urban renewal schemes subject to full Environmental Impact Assessment (EIA).

As an ecologist for over 14 years, Peter has obtained significant experience in respect of a wide range of protected and priority species. Species worked with include reptiles (surveys/mitigation), great crested newt (surveys/mitigation), badger (surveys/mitigation/licencing), dormouse (surveys) and bat, encompassing a wide range of survey and monitoring techniques. These include internal/external inspections/Preliminary Roost Assessment (PRA), in addition to involvement with successful bat mitigation license applications working in conjunction with specialist organisations.

3.2. Desktop Study & Records Search

To gain an understanding of any designations on/around the site in addition to the historical presence of protected species, desktop data has been obtained from the following sources:

3.2.1. Historical Protected Species Data

Records were requested from the Suffolk Biodiversity Information Service (SBIS) for records of protected/priority species within a 2km radius of the site. SBIS also provided information in respect of non-statutory designations within the search radius.

Use of data is in accordance with CIEEM Guidelines for Accessing & Using Biodiversity Data, March 2016.

3.2.2. Designations

A desktop study was undertaken through MAGIC (Multi-Agency Geographic Information System for Countryside). The search looked to identify the presence of statutory designated sites within a 5km radius (e.g. Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR).

3.2.3 Additional Information

Freely available on-line mapping information and Ordnance Survey Maps were consulted as part of the background assessment.

4. Results

4.1. Desk study Results.

Site Details

- The site is located at Central Grid Reference: TM 15882 35475
- Postcode: IP9 2RY

4.1.1. Magic-Statutory Designations

The search identified that the site is not directly located within nor bounding a statutory designation. The following designated locations are situated within a 5km radius of the site:

- Stour & Orwell Estuaries Special Protection Area (SPA), Ramsar – Approx. 1.5km south at closest point.
- Stour Estuary Site of Special Scientific Interest (SSSI) – Approx. 1.5km south at closest point.
- Orwell Estuary SSSI – Approx. 4.5km north east at closest point.
- Freston & Cutler's Wood with Holbrook Park SSSI – Approx. 4km north at closest point.
- Wrabness Local Nature Reserve (LNR) – Approx. 4km south at closest point.

Impact Assessment

The site is neither situated within, bounding nor has connectivity with a statutory designated location. Given the relatively small scale of the proposal, it is not considered reasonably likely the proposal would result in any adverse direct impact upon statutory designated locations.

4.1.2. Non-Statutory Designations

Non-statutory designations are used in the planning system to protect areas that have substantive nature conservation value at a local level.

The proposed application area (and the peninsula upon which it is located) is bounded by the Alton Water County Wildlife Site (CWS) to the north and east.

Impact Assessment

Whilst the site is situated in close proximity to the Alton Water CWS, the proposal is of small scale, and relates to a managed section of land adjacent to existing boatyard/sailing and boat storage facilities (see section 4.2). As such, it is not considered that the proposal would have an adverse impact upon the CWS. However, as a sensible precautionary to minimise risk of impact during construction

phase, it is advised that development areas be fenced off with heras fencing and that all materials/plant are stored in existing hard standing/boat storage areas on the western side of the application area. Such actions should be defined and secured within a site-specific Construction Management Plan secured by way of an appropriately worded planning condition.

Proportionate ecological enhancements for the proposal have been identified in section 5.2.

4.1.3. Biological Records

The records have been analysed as part of the desk research and considered as part of the conclusions and subsequent recommendations of this report. A summary of records pertinent to the site is provided below:

Amphibian/Reptile

Great Crested Newt

No records of the species were recorded within the search radius.

Smooth Newt

1x record of the species was identified dating from 2006, in respect of a pond situated over 1km from site.

Common Toad

The search identified a total of 4 records dating from between 2006-2019 in Holbrook.

Reptile

The search identified 5 records of slow worm, 21 records of grass snake and 13 records of common lizard. The records date from between 2003-2020.

Terrestrial Mammal

Bats

No of Records	Date Range
B. Long eared x 5	2008-2013
Common pipistrelle x 34	2014-2015
Daubenton's x 2	2014-2020
Natterer's x 2	2008-2013
Soprano pipistrelle 27	2014-2015
Noctule x 3	2014-2020

Hazel Dormouse

No records were identified within the search radius

Badger

6 records were identified within the search radius between 2001-2016.

Western Hedgehog

Over 100 records were available.

Other Records

Given the location of the site next to a reservoir, a very large number of avian records were available, with migratory and priority species records noted.

4.2. Survey Results & Analysis

4.2.1 Site & Surroundings Description & Habitats

Alton Water is situated approximately 0.5km to the north east of Stutton and comprises a reservoir utilised for a range of activities.

The application site is situated on the southern shore of Alton Water, situated on a peninsula that contains access road, car parking, cycle hire, café, visitor centre, boatyard/storage.

The proposed application area is situated on the eastern side of the aforementioned peninsula and comprises a parcel of land approximately 0.1ha in size. The gravel shores of the reservoir are situated to the north and east of the application area, with a large expanse of short mown, amenity grass situated to the south, south east and south west. A boat storage yard comprising compacted hardstanding and managed amenity grass bounds the application area to the west. The proposed service linkage would run through this area.

Within the site survey area, the main body of the site comprises mown, amenity grass. The area is used for barbecues, with stands for barbecues situated within and adjacent to the proposed development area. A young hawthorn hedgerow (spiral guards in place). is situated on the western side of the application area.

The proposed building would be situated entirely within the confines of the managed grass area, with the proposed service linkage running westwards through the boatyard to link with existing foul-water treatment facilities situated approx. 85m to the west. An approx. 19m section of the western hedgerow would be removed to provide access/service. However, this is a young hedge, and the section could be suitably re-planted/replaced as part of the proposal.

4.3. Potential for Protected Species Impact with Proposals

The site was assessed for the potential presence of protected species that may have a material impact upon the development proposals.

The ecological value of the site in respect of the potential presence of and impact upon protected species is considered further in the following sections:

4.3.1. Bats & Internal/External Inspections

All bat species are strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

Buildings

No buildings are situated on site nor would be affected by the development proposal.

Vegetation/Foraging/Commuting

A small section of the western hedgerow would be removed to provide access/service. However, this is a young hedge, and the section could be suitably re-planted/replaced as part of the proposal. It does not provide potential roosting habitat.

It is possible that bats would commute and forage in the area.

Impact Assessment

No trees/hedgerows with bat roosting potential would be lost to the development proposal. An approx. 19m section of the western hedgerow would be removed to provide access to the building/service installation. However, this is a young managed low hedge, and the section could be suitably re-planted/replaced as part of the proposal, and additional planting is recommended where appropriate within the landscaping. As such, potential commuting/foraging networks would be retained/enhanced.

Given the location adjacent to a reservoir, it is considered that use of a bat considerate lighting scheme is essential in respect of both the construction and completed phases of the development.

Provided the above and the scope of ecological enhancement recommendations identified in section 5.2 are implemented, the proposal would be unlikely to have an adverse impact upon bat behaviours, and that any such behaviours would continue and be enhanced post development through use of appropriate enhancement measures.

4.3.2. Badgers/Transitory Mammals

Badgers and active setts are afforded protection under the Protection of Badgers Act 1992.

No evidence of active or inactive setts, latrines or footprints was identified in the proposed development area nor within freely accessible areas situated within a 30m radius. However, it is considered possible that the species would have a transitory presence in the wider area, in addition to other transitory mammals including urban fox and deer species.

Impact Assessment/Transitory Mammal

In respect of badger, no further surveys are considered appropriate given absence of evidence on the site. However, general best practice precautions in respect of the construction phases have been provided in section 5.2 given the likelihood of transitory presence of the species/transitory mammal species.

As a general point, to enable all wildlife to use the site post development, it is advised that boundaries remain relatively open as per the current situation such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

4.3.3. Nesting Birds

Nesting birds and their eggs are protected under the Wildlife & Countryside Act 1981.

It is acknowledged that Alton Water is utilised by a large number of priority and migratory bird species and is an important avian 'stepping stone' water body between the Orwell and Stour Estuaries.

A small section of the western hedgerow would be removed to provide access/service installation. However, this is a young hedge, and the section could be suitably re-planted/replaced as part of the proposal, and additional planting is recommended where appropriate within the landscaping.

Impact Assessment

The proposal is of small scale and would not have any impact upon the gravel shore of the reservoir. The construction phase should be subject to the controls as identified in section 4.1.2 and 5.2. No potential wading habitat would be lost to the proposal.

As a mown, maintained amenity grassland, the main body of the application site is of negligible potential nesting habitat, and the proposed removal of hedge section for access/services installation can be suitably replaced.

As recommended in respect of bats, it is advised that lighting be minimal in scope, as identified in section 5.2.

As general guidance, works to vegetation should ideally be avoided during the bird breeding season which is from March to September if possible. If this is not possible, a search should be undertaken to confirm presence/absence of nesting prior to works being undertaken.

It is recommended that new opportunities for nesting birds be provided through provision of nesting boxes on/within new building (integral) and where appropriate, externally mounted bird boxes on trees to provide potential nesting opportunities within the site. Recommendations have been provided in section 5.2

Provided such actions are adhered to, the proposal would not result in adverse impacts upon nesting birds.

4.3.4. Reptiles

Reptiles are afforded protection under the Wildlife & Countryside Act 1981, with smooth snake and sand lizard afforded full protection under the same act and the Conservation Regulations (Habitat Regulations).

As described within section 4.1, the site for the proposed building comprises a managed amenity grassland of uniformly short sward, bounding large expanses of identical land. Similarly, adjoining boat yard is managed. Given management, the site is not considered to provide potentially suitable habitat. In addition, given location and surrounding land uses, the site is largely isolated from other surrounding habitat that would provide potential connectivity.

Impact Assessment

Given the condition/ongoing management of the site as described, it is not considered reasonably likely that reptile species are present on site and the risk of potential impact of the proposals upon the conservation status of reptile is negligible. The risk of potential impact of the proposals upon individual reptiles is also considered to be low. No further surveys are necessary in respect of reptile species.

As an appropriate precautionary action, in line with the existing and established management regimes, the grass lawn and vegetation on site should continue to be maintained and kept short through mowing/strimming management up until the point of any works commencing to prevent potential foraging/terrestrial dispersal habitat developing through neglect of the grass/vegetation.

4.3.5. Great Crested Newt

Great crested newt is strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

The site is not situated within a Natural England District Level Licencing Amber Zone. The reservoir is a very large water body subject to ongoing avian use and does not present a potentially suitable habitat for the species.

No ponds or water bodies are situated within the proposed development area and none would be lost or affected by proposals. Given management on site and location, it is unlikely that the site provides/forms part of a wider terrestrial dispersal network.

Distance from a potentially suitable water body and intervening land use is a critical factor in determining suitability for the species. As such, a search using mapping data

was undertaken to identify ponds within a 500m radius. No ponds were identified within the search radius.

Whilst it is acknowledged that small numbers of GCN have been known to range significant distances (1km) to colonise new ponds, sometimes over a number of years if connective habitat is suitable, research undertaken by English Nature[1] (now Natural England) indicates that it is most common to encounter them within 50m of a breeding pond, with few moving further than 100m unless significant linear features or suitable terrestrial habitat is involved, when great crested newts can be encountered at distances of between150m – 200m. At distances greater than 200-250m great crested newts are hardly ever encountered. This valuation of habitats according to distance from great crested newt breeding ponds has also been adopted as part of Natural England's European Protected Species application form, with specific reference to the guidance provided by Natural England in WMLa14-2.

It is acknowledged that there is no way of identifying whether there are other small ponds that may be hidden within any nearby dwellings/field margins and not shown on maps. None were immediately visible from site/analysis of mapping data. Identification of such ponds located on private property and not shown on maps cannot be reasonably expected as part of this survey/desk study.

Impact Assessment

Based upon the evidence above, it is not considered reasonably likely that great crested newt would be affected by or at risk from the development proposals. Risk of harm to the species is not considered a reasonable likelihood given the small-scale nature of the proposal/habitat condition as described. Consequently, it is considered that the risk of potential impact of the proposals upon the conservation status of great crested newt is negligible. The risk of potential impact of the proposals upon great crested newt is also negligible. No further surveys are considered necessary or appropriate in respect of this species at this site.

4.3.6 Hazel Dormouse

Hazel dormouse is strictly protected under the European Habitat Regulations and the Wildlife and Countryside Act 1981.

The does not have connectivity to suitable habitat nor locations where the species has been previously recorded.

Impact Assessment

It is not considered reasonably likely that a proposal of such small scale would result in adverse impact upon the species. No further surveys are considered necessary or appropriate and the proposal would not have any impact upon the species.

4.3.7 Invertebrates/Plant life

Given the existing and surrounding land uses, the site is not considered to provide habitat for protected, priority or notable species. No further surveys are considered to be necessary or appropriate.

However, installation of new landscape planting within the future proposal would provide invertebrate habitat on the site post-development. Night scented plant species such as evening primrose, honeysuckle and jasmine would also attract moths in the evening, which would in turn attract foraging bats.

Recommended enhancements are identified in section 5.2.

4.3.8 Other Species

The site is not situated in a location, nor provides potentially suitable habitat where other protected species such as, water vole and otter would be considered at risk. No further surveys/precautions are considered necessary or appropriate.

4.3.9 General Wildlife & Biodiversity

It is acknowledged that the wider site and development area may be utilised by a range of transitory wildlife species including deer, fox, hedgehog etc.

Impact Assessment

As part of appropriate due diligence, it is advised that the full range of recommendations identified in section 5.2 be fully implemented, and all reasonable enhancements incorporated into a development proposal such that biodiversity is maximised as part of the development.

In addition, to enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open as per the current situation such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

5. Conclusion & Recommendations

5.1 Conclusion

In summary, the proposed development area comprises a section of managed amenity grass adjacent to Alton Water reservoir. The application site is situated on the southern shore of Alton Water on a peninsula that contains access road, car parking, cycle hire, café, visitor centre, boatyard/storage. As such, the site and surrounds are subject to management and disturbance as would be reasonably expected in such a land use context.

The statutory designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory designated locations. It is concluded that the proposal would not be likely to have any adverse impact upon statutory designations. The site does bound Alton Water County Wildlife Site (non-statutory designation). Accordingly, given the small scale of the proposal, precautionary actions have been advised in section 5.2 in respect of managing the construction phase.

No trees/hedgerows with bat roosting potential would be lost to the development proposal. An approx. 19m section of the western hedgerow would be removed to provide access to the building/service installation. However, this is a young managed low hedge, and the section could be suitably re-planted/replaced as part of the proposal, and additional planting is recommended where appropriate within the landscaping. As such, potential commuting/foraging networks would be retained/enhanced.

Given the location adjacent to a reservoir, it is considered that use of a bat considerate lighting scheme is essential in respect of both the construction and completed phases of the development.

Provided the above and the scope of ecological enhancement recommendations identified in section 5.2 are implemented, the proposal would be unlikely to have an adverse impact upon bat behaviours, and that any such behaviours would continue and be enhanced post development through use of appropriate enhancement measures.

It is not considered reasonably likely that reptile or great crested newt species would be adversely affected by the development proposals.

No active or inactive badger setts were found. General appropriate precautionary measures for the construction phases have been advised in section 5.2.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2 of the report.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section 5.2 are fully adhered to. Where necessary, appropriately worded conditions should be placed upon any consent granted in order to ensure appropriate measures are followed.

5.2 Recommendations and Further Action

Following the survey, the following recommendations have been made to ensure obligations in respect of protected species are met/the site is enhanced for the benefit of biodiversity if developed. The recommendations are considered to be appropriate and in context with the size of the proposals, and based upon the findings of the impact assessment section of the report (4.3.1 – 4.3.9).

Construction Phase & General Precautions

- To protect any radiating mammals, it is recommended that any trenches be covered over with wooden sheeting at night and fencing off the demolition/construction zone and associated compounds would be advisable during the demolition/construction phase.

- Service pipes stored on site will be checked for sheltering mammals prior to installation.

- As a sensible precautionary to minimise risk of impact during construction phase, it is advised that development areas be fenced off with heras fencing and that all materials/plant are stored in existing hard standing/boat storage areas on the western side of the application area. Such actions should be defined and secured within a site-specific Construction Management Plan secured by way of an appropriately worded planning condition.

- As an appropriate precautionary action, in line with the existing and established management regimes, the grass lawn and vegetation on site should continue to be maintained and kept short through mowing/strimming management up until the point of any works commencing to prevent potential foraging/terrestrial dispersal habitat developing through neglect of the grass/vegetation.

Nesting Birds

- As general guidance, the bird breeding season is from March to September. If works to buildings/vegetation are proposed during the season, a check should be made for nests prior to works commencing. If nests are present, they should be left intact and undisturbed until the young have fledged.

Bats & Wildlife Considerate Lighting

- In order to minimise risk of disturbance to potential features that may provide bat commuting and foraging habitat during the construction phase and as part of the completed development, a low impact lighting scheme is advised:

  a) Brightness of lights should be as low as possible, and in accordance with British Standard Institute (BSI) and Bat Conservation Trust (BCT) guidance. Where possible, low pressure sodium lights are advised.

  b) Lighting should not be directed at features that may be utilised by bats such as woodland, tree lines, hedgerows and water bodies/water courses.

  c) Directional lighting and/or fittings with hoods and cowls should be utilised.

  d) Where possible, security lighting should be motion sensitive and timers to minimise the amount of time that lights are on.

  e) Where possible, directional low impact solar bollard lighting should be used to illuminate roads, paths and parking areas.

Enhancements

- The following ecological enhancements are recommended to be provided within the development:

  - 1 bird box per building;
  - Planting of replacement and new native trees and hedgerow;
  - Low impact lighting solution - no lighting of boundary tree lines; and
  - Inclusion of native/wildlife friendly planting in landscape scheme;

- Suggested habitat boxes/plant species are provided within Annex 4.

- To enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

1. Annex 1 – Legislation & Planning Policy

1.1. Habitat Regulations

The Conservation of Habitats and Species Regulations transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

1.2. Wildlife & Countryside Act

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1to the Act, (which includes Cirl Bunting) or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

1.3. Natural Environment & Rural Communities Act

The NERC 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

1.4. National Planning Policy Framework (NPPF)

The NPPF 2021 is specific in respect of conservation and biodiversity. ODPM 06/2005 remains in place. NPPF places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications, with a focus upon sustainable development and biodiversity net-gain.

1.5. Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of national priority species and habitats has been produced with all listed

species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels.

1.6. Local Development Plans

County, District and Local Councils have Development Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

1.7. Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

1.8. Bats

All species of bat found in the UK are protected by law and are designated as a protected species. Paragraph 98 of Circular 06/2005 states that '*the presence of a protected species is a* ***material consideration*** *when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

Bats are protected under UK legislation under The Wildlife and Countryside Act 1981 through inclusion on Schedule 5 -Protected bat species in Britain. On a European basis, bats are subject to protection under the Conservation (Natural Habitats &c.) Regulations.

The November 2017 the Conservation (Natural Habitats &c.) Regulations make it an offence to:

- Intentionally or deliberately kill, injure or capture (take) bats.
- Intentionally or recklessly damage or destroy bat roosts or disturb bats.

A bat roost is defined as 'any structure or place which is used for shelter or protection', whether or not the bats are utilising the roost at the time. European protected animal species and their breeding sites or resting places are protected by the Habitat Regulations.

In this regard, it is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their young/eggs as applicable. It is also an offence to damage or destroy a breeding or resting place of a European Protected Species and it is an offence to possess a European Protected Species.

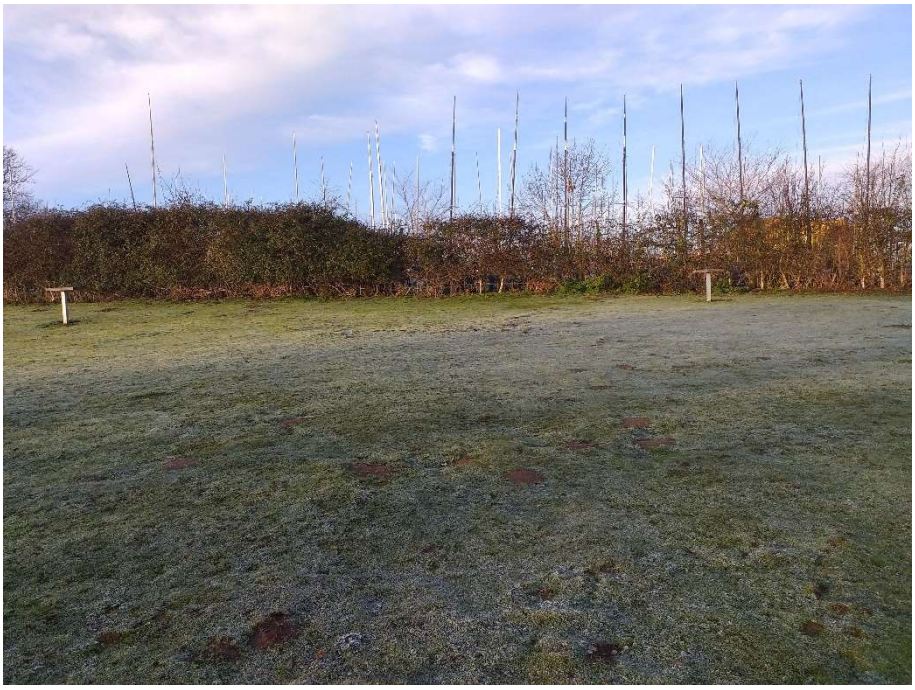
The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit

an offence only if he deliberately disturbs such animals in a way as to be likely to significantly affect:

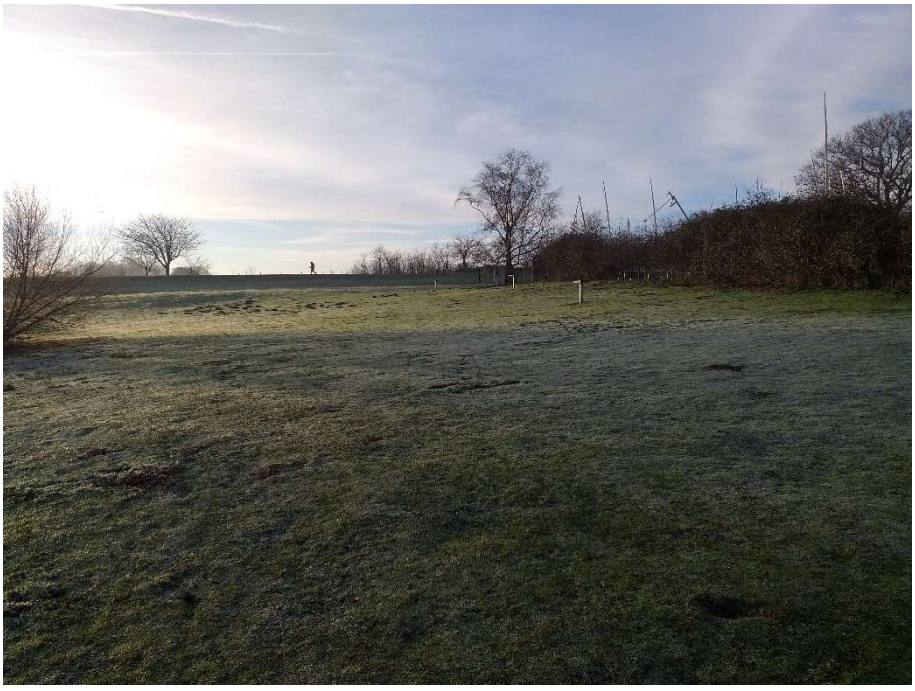
- The ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or;
- The local distribution of abundance of that species.

The existing offences such as obstruction of a bat roost, low-level disturbance, and sale which cover European Protected Species under the Wildlife and Countryside Act (1981) continue to apply.

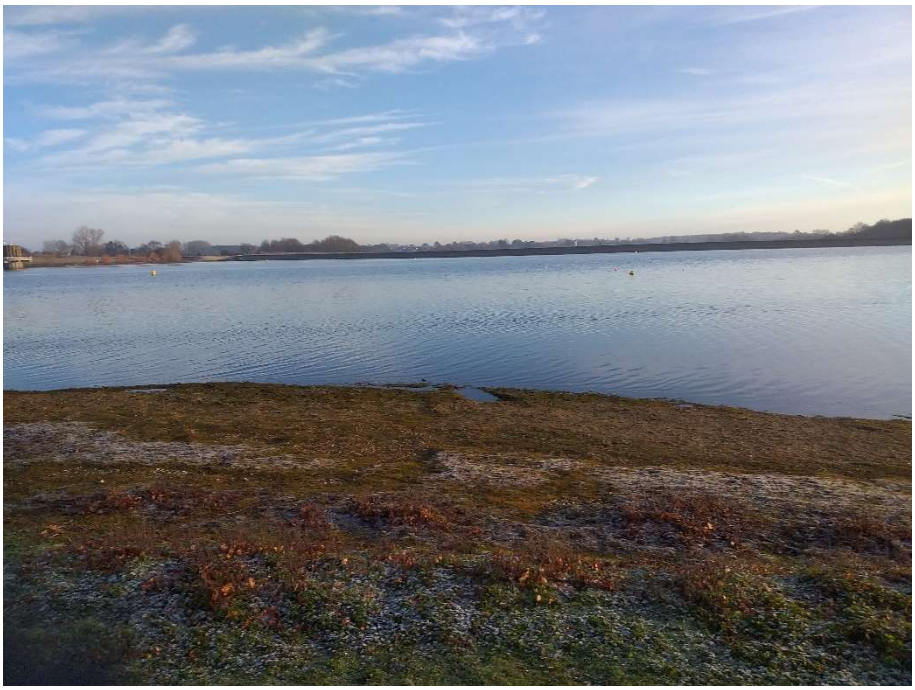
2. Annex 2 – Photographs



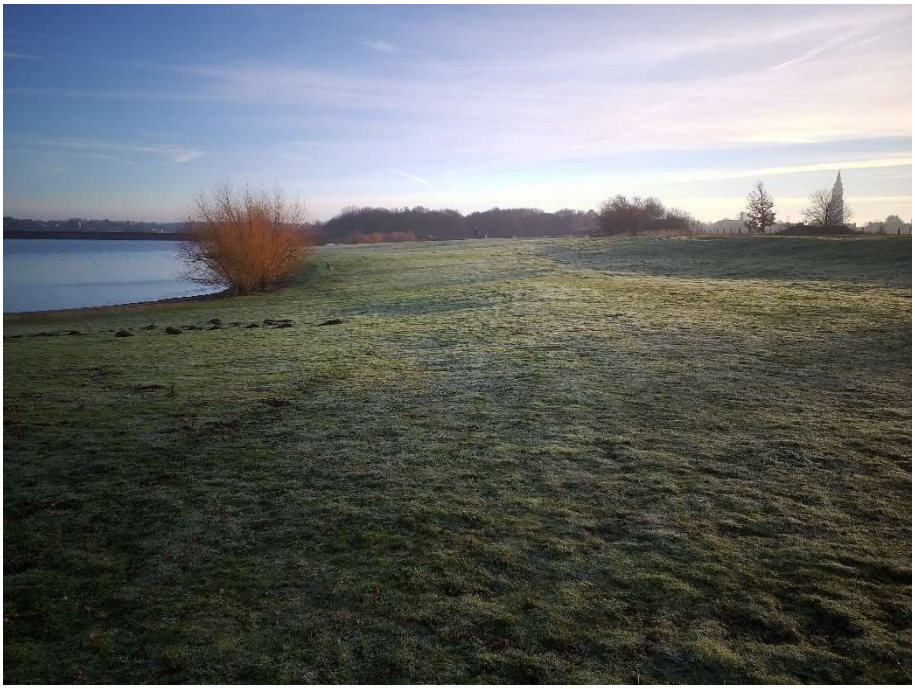
Proposed development area looking west



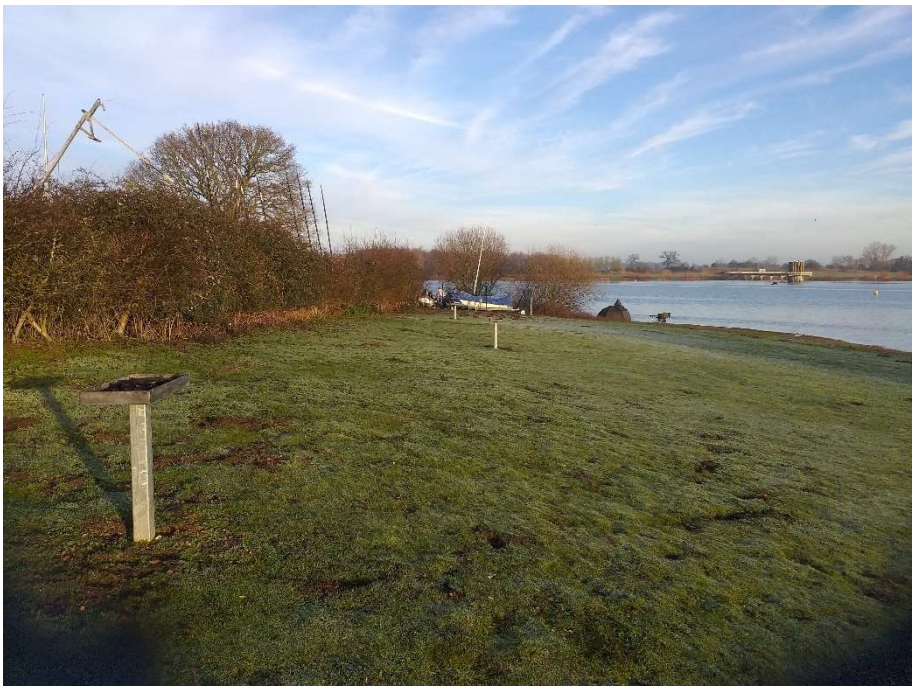
Proposed development area looking south



Gravel shore of reservoir located to east of development area

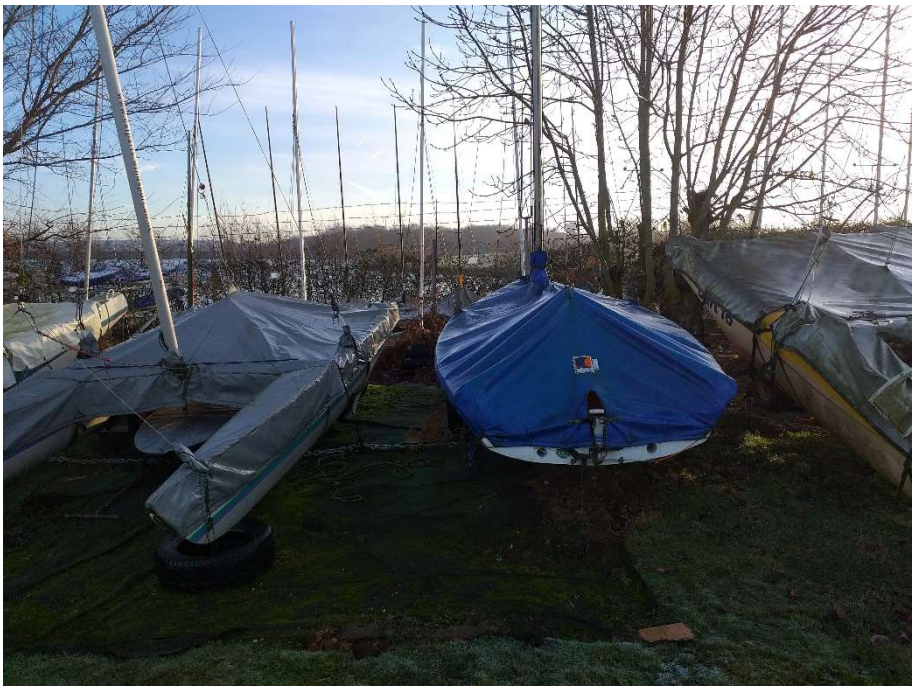


Land bounding development area to south

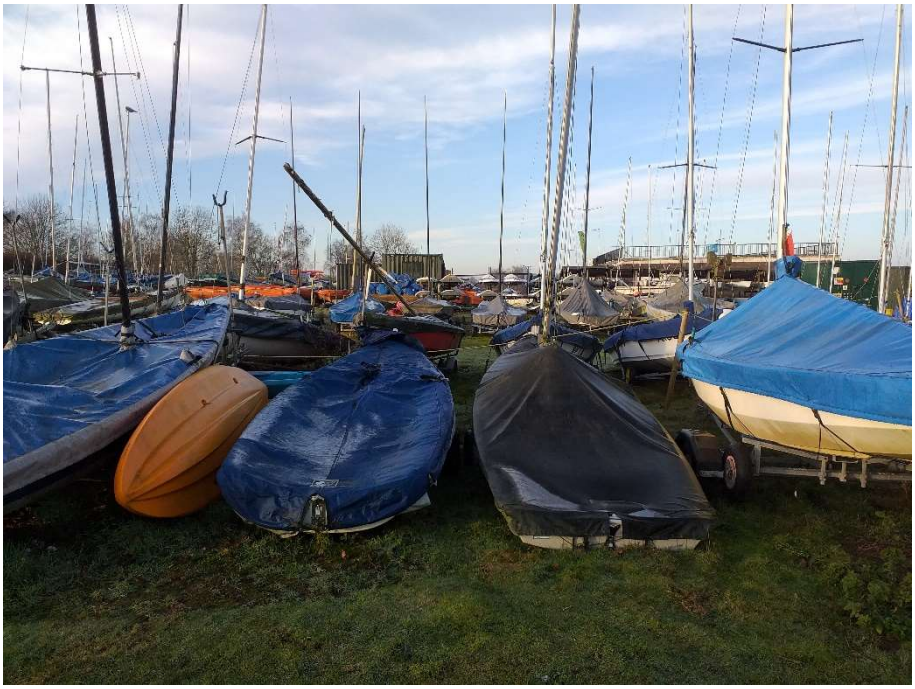


Development area looking north

Young section of hedge to be removed to provide access/service installation



Neighbouring boatyard through which service run would be installed



Neighbouring boatyard through which service run would be installed looking west

Car parking and infrastructure located to west of boatyards

3. Annex 3 – Habitat Plan

KEY
Broad-leaved tree
Standing water
Amenity grassland
Species poor intact hedge
Concrete / gravel hardstanding
Building
Compacted hardstanding / amenity (Boatyard)
title
Extended Phase 1 Habitat Survey
site
Alton Water
dwg no.
MH1407-01
scale
NTS @A4
date
Feb 2022
T4 ECOLOGY LTD

4. Annex 4 – Recommended Enhancements

The following hedgerows/shrub and smaller tree species could be utilised accordingly:

- Hawthorn *Crataegus monogyna*
- Ash *Fraxinus excelsior*
- English Elm *Ulmus procera*
- Field Maple *Acer campestre*
- Hazel *Corylus avellana*
- Dog Rose *Rosa canina*
- Elderberry *Sambucus nigra*
- Holly *Illex aquifolium*
- Blackthorn *Prunus spinosa*
- Rowan Sorbus *aucuparia*
- Guelder Rose *Viburnum opulus*
- Silver Birch *Betula pendula*
- Alder *Alnus glutinosa*
- Cotoneaster *spp.*
- Spindle *Euonymous europaeus*

The following species could also be considered within the landscaping scheme as appropriate, given their wildlife friendly/native characteristics:

- Viburnum *sp.*
- Californian Lilac *Ceanothus sp.*
- Lavander *Lavandula angustifolia*
- Hebe *Sp.*
- Privet *Ligustrum vulgare*
- Dogwood *Cornus sanguinea*

In addition, vertical areas on sides of buildings and/or boundary fences could be utilised to provide additional habitat. Suitable species to grow on vertical habitats could include:

- Ivy *Hedera helix*
- Clematis *vetalba*
- Honeysuckle *Lonicera periclymenum*

Bulbs and small, wildlife friendly annuals and biennials can also be utilised within wildlife friendly and garden planting where considered appropriate by the landscape architect. Suitable species could include:

- Hypericum *perforatum*
- Wood Anemone *nemorosa*
- Tustan *Hypericum androsaemum*
- Foxglove *Digitalis grandiflora*
- Bluebell *Hyacinthoides non-scripta*

Dependant on soil condition, British Seed House RE1 mix (or similar product) is recommended for installation of the species rich grass areas where required. Alternatively, turf already seeded with wild flower seed could be utilised.

Recommend species are likely to include:

- Slender Creeping Red *Fescue Festuca rubra ssp litoralis*
- Crested Dogs Tail *Cynosurus cristatus*
- Common Bent *Agrostis capillaris*
- Cocksfoot *Dactylis glomerata*
- Meadow Fescue *Festuca pratensis*
- Golden Oat Grass *Trisetum Flavascence*
- Sweet Vernal Grass *Anthoxanthum odoratum*
- Ribwort Plantain *Plantago lanceolata*
- Yarrow *Achillea millefolium*
- Common Knapweed *Centaurea nigra*
- Meadow Sweet *Filipendula ulmaria*
- Lady's Bedstraw *Galium verum*
- Ox eye daisy *Leucanthemum vulgare*
- Self Heal *Prunella vulgaris*
- Meadow Buttercup *Ranunculus acris*
- Bulbous Buttercup *Ranunculus bulbosus*
- Agrimony *Agrimona eupatorium*
- Rough Hawkbit *Leontodon hispidus*
- Yellow Rattle *Rhinanthus minor*
- Common Birdsfoot Trefoil *Lotus corniculatus*
- Salad Burnett *Sanguisorba minor*
- Harebell *Campanula rotundifolia*
- Cowslip *Primula deorum*
- Field Poppy *Papaver Rhoeas*
- Wild Thyme *Thymus Serpyllum*
- Quaking Grass *Brizia Media*
- Pignut *Conopdium majus*

Using Seeds

Seed Bed Preparation

Whilst seeds can be sown at any time, the best time to prepare the meadow bed is summer. The top grass, and top inch of top soil should be removed if possible. The most important factor is to ensure that the seed bed is weed free, and level using roller/rake. Also, remove stones in areas of seedbed, Wildflower meadows from seed are most successful when soil fertility is low and weeds can be less vigorous.

Sowing Seed

The best time to sow the seeds is in spring or early autumn. Spread seeds in a sand mix using a spreader for even distribution at a density of approx. 4 grams per sq. metre.

Using Plugs

Use of wildflower plugs is generally more reliable, and gives quicker results than using seed. However, over large areas, density of plugs can be reduced, with 1 or 2 plugs per square metre. Generally, plugs can be installed at any time but spring/autumn are optimum months.

Using Turf Impregnated with seeds

Use of turf less dependent on soil conditions as the seed are already in place. This enables more variety of species. However, to be successful, it should be installed in free draining areas that do not become water logged.

Wildflower Plugs and seeds are available from a number of online suppliers:

www.wigglywigglers.co.uk

www.bostonseeds.co.uk

www.wildflowershop.co.uk

www.reallywildflowers.co.uk

www.wildflower.org.uk

www.meadowmania.co.uk

Sections of turf already seeded are also available from the following suppliers:

www.meadowmat.co.uk

www.wildflowerturf.co.uk

www.wigglywigglers.co.uk

Habitat Boxes.

The use of bird and bat boxes has been recommended. Suitable products include:

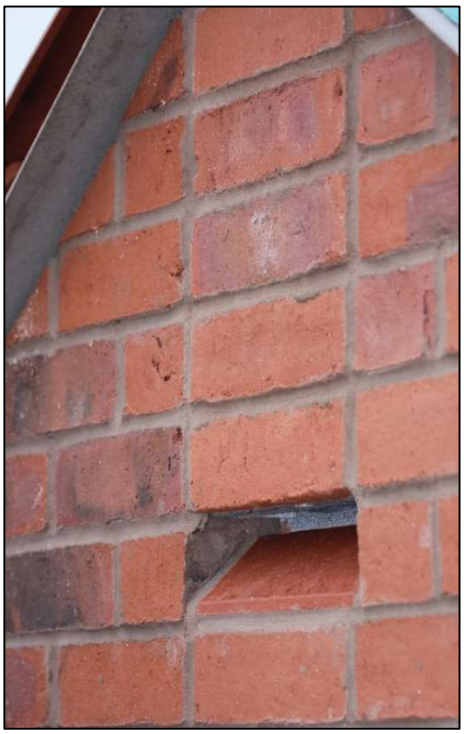
Standard Bird Box-Suitable for a wide variety of species. Can be installed in trees and buildings.

Schwegler 2F Bat box. Suitable for attachment to trees.

Buildings-Integral Bat Boxes

The construction of new buildings presents the opportunity for integral bat boxes, installed during the construction phase.

Products such as the Ibstock Range (www.ibstock.com) would be appropriate for installation in the eaves of the new dwellings, as installed as illustrated below:



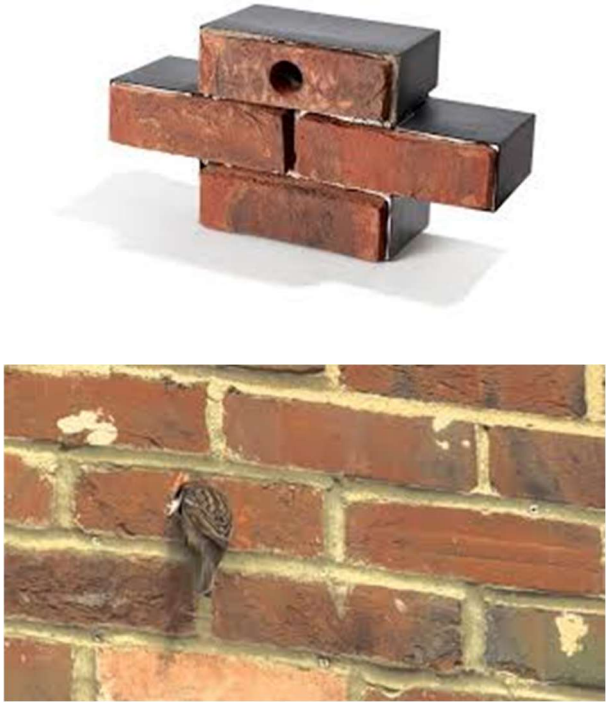
Ibstock Integral Bat Box

Aftercare

Bats are a protected species, and any object they utilise for roosting is therefore also protected. Therefore, following installation the bat boxes should not be disturbed, as disturbance may result in an offence under the Wildlife and Countryside Act (1981) and the European Habitat Regulations (2010). Bat boxes are very robust and will not require maintenance, and therefore are at their most effective if left undisturbed.

Buildings-Integral Bird Boxes

Integral bird boxes could be installed on the north/east facing eaves. A system such as the Bird Brick House (www.birdbrickhouses.co.uk) as illustrated below is recommended, installed in accordance with the manufacturers specific recommendations.



Bird Brick House System

Installation

The following should be taken into account in consideration during the installation of bird boxes suitable for a wide variety of common garden species.

- These should be placed away from cats, and at least 2m from ground level.
- These should where possible be located away from direct sunlight, ideally facing between north and east (not south), away from cats, and at 2-5m height.
- They should also be out of reach of windows when placed upon buildings.