



Crow Ecology
Creating a Nest for your Project & Nature

Preliminary Ecological Appraisal Report

Site: 23/01698/PLF - Proposed fishing lodges – Land opposite 3 Canal Side West, Newport, Brough, HU15 2RN

Client: Ettridge Architecture Ltd. on behalf of their client

Date of Survey: 20th September 2023

**Prepared by Chris Crow BSc (Hons),
ACIEEM.**

NE Bat License No: 2015-11015-CLS-CLS
NE Great Crested Newt License No: 2015-18094-CLS-CLS
NE Barn Owl License No: CL29/00149

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Validity of survey data and report. The findings of this report are valid for 24 months from the date of survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required

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1. Summary

Crow Ecology was commissioned by Ettridge Architecture Ltd. on behalf of their client to undertake a Preliminary Ecological Appraisal survey. The purpose of the PEA survey is to identify habitats and species present and evaluate the ecological value of the survey area. PEA provides an ecological baseline from which further recommendations/surveys can be highlighted. The survey is required to inform a proposed planning application which is to be lodged with the local planning authority, in this case East Riding of Yorkshire Council.

The project site is a parcel of land along the edge of the Market Weighton canal. Canal Side West, Newport, Brough, HU15 3RN. Copies of the proposed development were provided by: Ettridge Architecture, 52 Prestongate, Hessle HU13 0RE.

The proposed development is:

- Fishing lodges with associated access and landscaping

The PEA survey was undertaken on the 20/09/23 in suitable weather conditions for this type of survey.

A desktop study was performed to review the site using data from North and East Yorkshire Ecological Data Centre (NEYEDC). Google maps were used to review the site. There are no statutory designated sites, 4 non-statutory designated sites and 4 forms of Priority Habitats within a 1km radius of the project site. The project site has no listed designations.

The site consists of four different habitats: Improved grassland, Dense/continuous Scrub, Semi-natural Broad-leaved Woodland and Marginal vegetation. Of the four habitats, one is listed as either the UKBAP or LBAP priority habitats lists (Semi-natural Broad-leaved Woodland); although it is not designated. None of the plant species present are protected or notable.

Under the proposed development, all the habitats, except the Marginal vegetation will be cleared; with only 4 of the 15 Semi-natural Broad-leaved Woodland retained. There is very little area left for habitat enhancements other than the Green roof, which has been recommended to a higher specification to compensate for these losses.

Further survey recommended:

- Water vole survey between April – September

The following recommendations have been made; measures include:

- PWMS for Badgers and other mammals
- Breeding bird survey (only if clearing/felling is scheduled to take place between 1st March – 31st August)
- Lighting Specifications if applicable
- PWMS for the Canal

Biodiversity Enhancement Recommendations include:

- Biodiverse Green Roof
- Wall-mounted Bat box
- Wall-mounted bird boxes



2. Introduction

Crow Ecology was commissioned by Ettridge Architecture Ltd. on behalf of their client to undertake a Preliminary Ecological Appraisal (PEA) survey. The PEA survey took place on the 20th September 2023 by Chris Crow ACIEEM and Amelia Bateman-Young. The purpose of the PEA survey is to identify the habitats and species present; evaluate the ecological value of the survey area and determine the ecological impacts if necessary. PEA provides an ecological baseline from which further recommendations/surveys can be highlighted¹.

Recommendations for mitigation and/or further survey work can be made to reduce the impact on these habitats and species and therefore potential constraints to any development which might take place.

2.1 - Site Location

The project site is a parcel of land along the edge of the Market Weighton canal. Canal Side West, Newport, Brough, HU15 3RN. Grid Reference SE856302².

The landscape and land use around the site is a mixture of residential and agricultural. Surrounding the site immediately is the canal to the East and residential properties to the West, with further residential properties to the North and South of the site. The area has several bodies of water to the North-West of the project site with areas of woodland surrounding these bodies. There is also scattered trees along the canal which connect to the large landscape through trees and hedgerows around the agricultural fields.



Figure 2.1 - Aerial view with project site illustrated within the wider landscape (not to scale). Source – Google Maps 2023³.

2.2 - Site Description

The project site is approximately 0.1 hectares (ha). The Eastern boundary borders the canal, there are timber-panelled fences on all the remaining boundaries. Canal Side West road is adjacent to the Western boundary. The main area of the site is mixed dense continuous scrub.



Figure 2.2 - Aerial view of project site illustrated and the development boundary (not to scale or accuracy). Source – Bing Maps 2023³.

Within the development boundary there are 4 habitats:

- Improved grassland
- Dense/continuous Scrub
- Broad-leaved Semi-natural woodland
- Marginal vegetation

Please see appendix 1 for the existing layout of the site.

2.3 - Site Proposal

The planning application is:

- Fishing lodges with associated access and landscaping

Please see appendix 2 for the proposed layout of the site.

3. Methods

This report has been written following the guidelines below:

- JNCC Handbook for Phase 1 habitat survey - A technique for environmental audit¹
- *Great Crested Newt Mitigation Guidelines* (2001) by English Nature⁴
- The Bat Conservation Trust: Bat Surveys for Professional Ecologists - Good Practice Guidelines (3rd edition 2016)⁵
- *Wild birds: Advice for making planning decisions* Crown Copyright (2022)⁶
- *Badgers: Advice for making planning decisions* Crown Copyright (2022)⁷
- *Reptile mitigation guidelines* Natural England Technical Information Note TIN 102 Natural England (2011)⁸
- Strachan et al (2011) Water Vole Conservation Handbook – 3rd Edition⁹
- Dean, M. et al. (2016). The Water Vole Mitigation Handbook for Development and Other Construction Activities. Eds. Fiona Mathews & Paul Chanin. The Mammal Society, Southampton¹⁰.
- The Code of Professional Conduct and guidelines as laid down by the Chartered Institute of Ecology & Environmental Management (CIEEM).

3.1 - Phase 1 Habitat Survey

The site was surveyed on the 20th September 2023 using the JNCC methodology (2010)¹ to produce a report, phase 1 habitat map and a species list of what is on the site. Target notes, with supplementary information were created to highlight the potential for protected species and areas of ecological value within the site and surrounding area.

The Phase 1 map was digitised using QGIS software.

This method involves an analytical walk around the site and each habitat type was drawn onto a blank base map of the site and coded using the JNCC standard codes. The dominant species in each habitat were coded and target notes were made when areas of ecological interest were encountered.

3.2 - Desktop Study

A desktop study was performed to review the site using data from North and East Yorkshire Ecological Data Centre (NEYEDC)¹¹. This data search includes designated sites, priority habitats and protected and/or notable species. The search included all records within 1km of the site from the centre of the project site located at grid reference SE856302². Google maps were also used to review and map the site³.

3.3 - Method Justification

A Preliminary Ecological Appraisal (PEA) was undertaken as the project site is within a rural location and has trees, hedgerows, and buildings within the development boundary; as well as the neighbouring canal to the East. These habitats may have potential for protected species. A 1km data search radius was selected as the proposed development is small and within the existing property boundary and therefore if there are ecological impacts to consider, this impact would only be localised.



3.4 - Survey Personnel

Chris Crow BSc (Hons) has over 12 years of surveying experience and holds the following Natural England (NE) licences;

Bat Licence No: 2015-11015-CLS-CLS

Great Crested Newt Licence No: 2015-18094-CLS-CLS

Barn Owl Licence No: CL29/00149

Amelia Bateman-Young has a BSc (Hons) in Geography from the University of Hull and after three seasons at Crow Ecology, wishes to pursue a career in Ecology. I am tutoring Amelia in all aspects of ecology.



4. Survey Results

4.1 Desktop Study (Data Search)

4.1.1 – Statutory Sites

4.1.1.1 - Statutory

There are no statutory designated sites within the 1km search radius¹¹.

4.1.1.2 – Non-Statutory

There are 4 non-statutory designated sites within the 1km search radius¹¹; all designated a Local Wildlife Site (LWS): *Broomfleet Washlands*, *Oxmardyke Washlands*, *Newport Pond* and *Newport Brick Ponds*. The closest is *Newport Brick Ponds*, which are approximately 75m East of the project site. Please see figure 4.1.

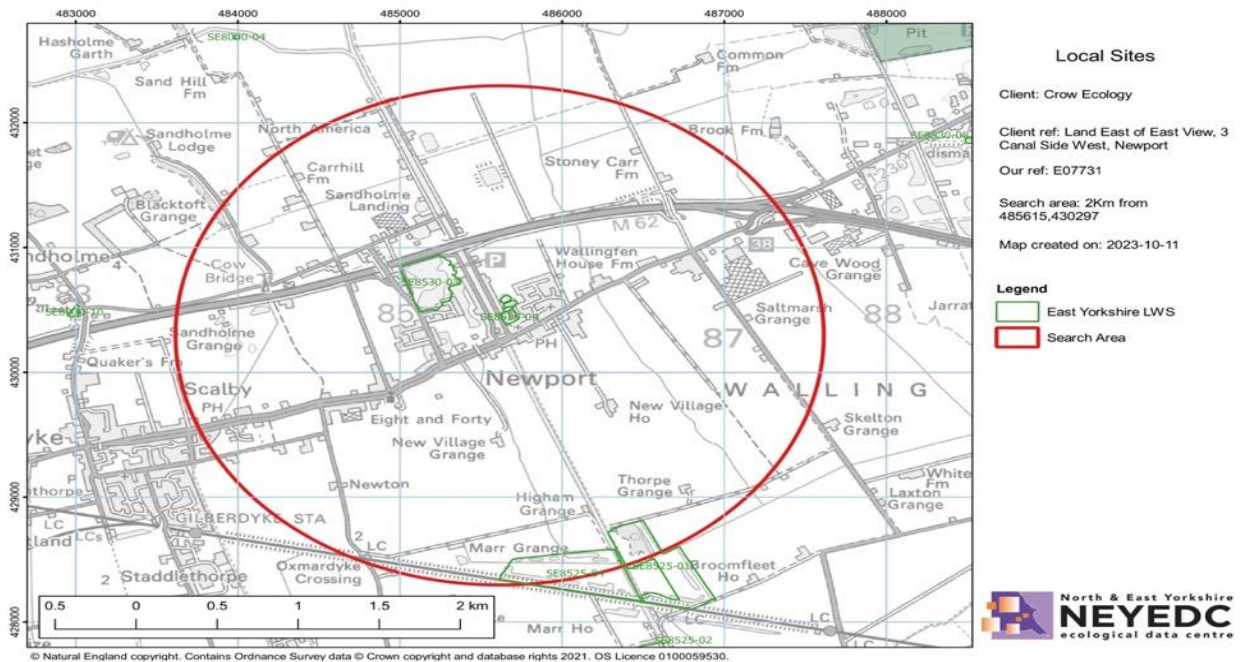


Figure 4.1 – Non-statutory designated sites within 1km of the project site¹¹

4.1.2 – Priority Habitat Data

There are no ancient woodlands present and 4 forms of Priority Habitat within the 1km search radius¹¹. Priority habitats present are: *Coastal and floodplain grazing marsh*, *Lowland fens*, *Deciduous woodland* and *Traditional orchard*. The closest is the *Deciduous woodland*, approximately 300m NW from the project site. Please see figure 4.2.



4.3 Habitats

Please see Phase 1 Map (appendix 3) and Species list (appendix 4)

4.3.1 – Grassland and marsh – Improved grassland (B4)

The grass verge along the Western boundary of the site is well maintained Improved grassland. It is species poor and dominated by Annual Meadow Grass *Poa annua*. Other grass species include: Perennial Rye Grass *Lolium perenne*, Red fescue *Festuca rubra*, Common couch *Elymus repens*, Yellow oat grass *Trisetum flavescens* and Cocksfoot *Dactylis glomerata*.

Herbaceous species present: Dandelion *Taraxacum officinale*, Greater Plantain *Plantago major*, White Clover *Trifolium repens*, Ribwort plantain *Plantago lanceolata*, Daisy *Bellis perennis*, Rough hawkbit *Leontodon hispidus* and Cow Parsley *Anthriscus sylvestris*.

Ruderal species present: White-Dead Nettle *Lamium album*, Field Bindweed *Convolvulus arvensis* and Sow Thistle *Sonchus oleraceus*. There is also self-seeded Dogwood *Cornus sanguinea* and Scattered Snowberry *Symphoricarpos albus* which have spread over from surrounding habitat. Please see plate 4.1.

4.3.1.1 - Target Note 1 - Mammals

The grassland is suitable for commuting/foraging mammals like the Hedgehog *Erinaceus europaeus*.



Plate 4.1 – Grassland long Western boundary.

4.3.2 – Woodland and scrub - Scrub – Dense (A2.1)

This habitat is present within the main body of the project site. It is likely the site was cleared a number of years and left unmanaged. Bramble *Rubus fruticosus* is dominant with Self-seeded Sycamores *Acer pseudoplatanus*, Elder *Sambucus nigra* and Dogwood are frequent. Tall ruderal vegetation is intertwined into this habitat with Common nettle *Urtica dioica* the dominant species. Only other ruderal species present is Creeping thistle *Cirsium arvense*. There are a number of log piles within this habitat. Please see plate 4.2

4.3.2.1 - Target Note 1 - Mammals

The scrub is suitable for sheltering and foraging mammals like the Hedgehog. The log piles within the habitat also could act as a refuge for small mammals.



4.3.2.1 - Target Note 2 - Birds

The scrub is suitable for breeding birds.



Plate 4.2 – (L) facing SW into the site, (R) facing NW into the site – the dense/continuous scrub.

4.3.3 – Woodland and scrub – Woodland – Broad-leaved – Semi-natural (A1.1.1)

This habitat is along the Eastern boundary of the project site, parallel to the canal. It is a semi-mature woodland that is likely a result of self-seeding. Alder *Alnus glutinosa* is dominant with 6 strands. Downy Birch *Betula pubescens* is also frequent with 4 strands. Sycamore has 2 strands, while Silver Birch *Betula pendula*, Apple *Malus domestica* and Elder have a single strand each. None of the trees had Potential Roost Features (PRF's) for bats in the forms of: Woodpecker holes, Rot holes, Hazard beams, Cracks within the trunk/branches/stem, Partially detached bark, Knot Holes, Man-made holes, Cankers, Other hollows or cavities, Double leaders, Gaps between branches/stems, Gaps behind mature ivy stems and Bat/bird boxes. Please see plate 4.3.

The understorey shrub layer is dominated by Bramble only; predominately in the central section of this habitat. The field layer is dominated by Tall ruderal vegetation. Nettle is dominant. Other species include: Hogweed *Heracleum sphondylium*, Cow Parsley, Ground Ivy *Glechoma hederacea*, Red Dead Nettle *Lamium purpureum* and Creeping thistle. Please see plate 4.4.

4.3.3.1 - Target Note 1 - Mammals

The ruderal is suitable for foraging small mammals like Hedgehogs.

4.3.3.2 - Target Note 2 - Birds

The trees are suitable for breeding birds.

4.3.3.3 - Target Note 3 - Bats

The trees are suitable foraging and commuting bats



Plate 4.3 – (L) Facing South, (R) Facing East; the Semi-natural broad-leaved woodland along the top of the bank of the eastern tree habitat boundary



Plate 4.4 – (L) Facing North (R) Facing South; Tall ruderal vegetation field layer

4.3.4 – Swamp, marginal and inundation – Marginal inundation – Marginal vegetation (F2.1)

This habitat is present on the eastern boundary, along the edge of the canal. This is dominated by Common Reed *Phragmites australis*, with Rosebay willowherb *Chamaenerion angustifolium* scattered throughout. Tall ruderal species are also encroaching into this habitat. Please see plate 4.5.

4.3.4.1 - Target Note 4 – Water Vole

The habitat has potential for Water vole *Arvicola amphibius*.



Plate 4.5 (L) facing north, the marginal vegetation along the canal (R) – Facing West, into the site from the opposite bank of the canal.

4.4 – Water vole Habitat Suitability

The projects sites length of bank was assessed for Water vole *Arvicola amphibius* Habitat Suitability. The bank was assessed for evidence of Water vole in the forms of: burrows, feeding stations, lawns and runways; there was no evidence. The shoreline of the canal was also assessed for faeces, latrines and footprints; there was no evidence. Items within the canal, on the shoreline, such as rubbish, fallen branches and stones was also assessed for Water vole presence; no evidence was found. Please see below the habitat suitability assessment¹³ and score:

Score	Suitability	Comment
1	Unsuitable	This type of dyke will contain very little if any vegetation, shallow or low banks, no berm and with no rush/grass tussocks in close proximity of the dyke. It is possible that this type will have recently been slubbed out and will have scored the one point from having open water present.
2	Unsuitable	A score of 2 will also be unsuitable and will usually lack well developed vegetation cover.
3	Sub optimal	In this case there will be a small number of positive features; these dykes may rarely be of enhancement potential (to raise the score to 6).
4	Sub optimal	This type of dyke is quite common often characterised by suitable open water, steep banks and good vegetation coverage. A score 4 dyke will often have good enhancement potential to make it an optimal dyke.
5	Sub optimal	A score of 5 with a berm present will describe a sub optimal <u>soke</u> dyke. In the case of marsh dykes, where berms are rare, a score of 5 without a berm will be interpreted as a 5* dyke and be thought of as optimal. A score 5 dyke will often have a number of field signs evident.
5*	Optimal	
6, 7 & 8	Optimal	A score of 6, 7 or 8 represents an optimal dyke for Water Voles. It will often have dense and varied vegetation, tall and structurally sound banks, permanent open water, a lack of disturbance (often due to the exclusion of cattle) and the presence of one or more of a berm, suitable refuge sites or nest building opportunities. A score 6, 7 or 8 dyke will often be bordered by a band of grass or rush tussocks.

The factors below were given a 'YES/NO' if this section of the Canal fit those particular criteria. The eastern Bank shoreline was not assessed in this assessment as its shoreline is over 15m away and therefore if Water vole are present on the eastern bank, they will not be directly impacted upon¹⁴. Please see results below.

Water vole Habitat Suitability	
Well developed (>60%) bankside and emergent vegetation to provide cover	YES
Year-round availability of food sources	YES
Suitable refuge areas above extremes in water levels	NO
Steep banks suitable for burrowing	YES
Permanent open water	YES
Presence of berm	NO
Lack of disturbance through poaching and grazing	YES
Nest building opportunities in vegetation above water level	NO
Habitat Assessment Score	5

Field	Yes/No	Notes
Water vole sighting	NO	N/A
Well developed (>60%) bankside and emergent vegetation to provide cover	YES	The banks' height is approximately 1.5m small. Over 60% of the bank is covered in vegetation.
If there is over 60% bankside vegetation cover then a YES should be put in the box. The vegetation should ideally be of a height greater than 30cm and should provide a relatively continuous cover. If the water level is obviously at a high point give thought to the position of the vegetation on the bank and try to imagine the water body at a time of normal water levels. If you decide that there is insufficient bankside vegetation then you should place a NO in the box.		
Year-round availability of food sources	YES	The vegetation is not low or sparse but has limited diversity. Common reed is dominant on the margin. Other species include: Rosebay willowherb, Common nettle, Hogweed, Cow Parsley, Ground Ivy, Red Dead Nettle and Creeping thistle only.
Where there is a good mixture of vegetation types (grasses, reed and reed rhizomes, sedge and limited areas of scrub such as hawthorn or bramble) and plenty of currently green vegetation then a YES should be placed in the box. If the vegetation is very low and sparse and patchy then a NO should be placed in the box.		
Suitable refuge areas above extremes in water levels	NO	There are no Rush sp. in this section of the Canal or tussock forming grasses present.
Where there is good refuge (i.e., an area of dense rush or grass tussocks) within 10m of the water margin and situated on higher ground, which would not become flooded at high water levels, then place a YES in the box. If there are no tussocks present or they are very sparse then a NO should be put in the box.		
Steep banks suitable for burrowing	YES	The banks' height, gradient and substrate are suitable for Water vole burrows.
Where the banks are of a height of greater than 40-50cm freeboard, are of an angle between 30° - 50°, appear stable and with a substrate suitable for burrowing, a YES can be placed in the box. If the banks are below 30cm in height above the current water level, or are at a very low angle, then a NO should be put in the box. If the bank is two staged (e.g., two clear slope phases but not a wetted berm proper) then a note should be made.		
Permanent open water	YES	The Water flow is constant and will remain so, even in drought periods.
Where there is permanent open water put a YES in the box. Where the water body is filled with emergent vegetation put a NO in the box and make a note on the right hand side if you feel there would be an enhancement potential through management works.		
Presence of berm	NO	There is no berm present
If there is a continuous berm along the water body edge put a YES in the box. If there is only a very limited berm or none at all then put a NO in the box. Care should be taken to give consideration to the current state of the water level; if it is very high the berm may be flooded – if this is the case, carefully poke the water body edge with the measuring stick in order to obtain an idea of the presence of a berm. If water levels are low then ensure that you have a thorough investigation for the presence of a berm and take the opportunity to check for latrine, pathway and feeding remains.		
Lack of disturbance	YES	There is minimal disturbance or maintenance.

through poaching and grazing and/or recent management		
Where there are few signs of hoof imprints and poaching damage, no sign of recent cutting/slubbing out of the water body or the provision of stockproof fencing then a YES should be placed in the box. However, if there is obvious poaching damage to the bank and short, grazed bankside vegetation then a NO should be put in the box. A note should be placed on the right hand side of the box if the surveyor believes that stockproof fencing would be a valuable enhancement to the water body.		
Nest building opportunities in vegetation above water level	NO	There are suitable no Reed beds that are not subjected to water level fluctuations within this section or dense grass/tussocks vegetation present.
Where there are low, unsuitable bank levels the presence of nearby nest building opportunities provide an alternative refuge habitat. Where there are numerous, dense grass, rush or sedge tussocks within 5m of the water body margin then a tick should be placed in the box. If there are few tussocks or they are further away from the water body margin then a cross should be placed in the box.		

This project sites section of the Canal scored 5 – Sub-optimal. This section has suitable habitat at the time of the survey but there were no field signs present or Burrows. Please see sections 5.5 and 6.4.

4.5 – Immediate Surrounding habitats

Immediately to the North of the project site is improved grassland with scattered trees. The species here. To the East is the canal followed by eastern bank, which is more species diverse than the project sites bank due to the limited shade. To the South of the project site is a play area with improved grassland. There is a hedgerow between the project site and play area, which is unmanaged. To the west are residential properties with associated private gardens. Please see plates 4.5 (R) and 4.6.

4.5.1 – Target Note 1 – Mammals

The neighbouring grasslands may provide foraging/commuting opportunities for mammals such as Hedgehogs. It is possible that such species may also commute and/or forage within the project site.

4.5.2 - Target Note 4 – Water Vole

Either side of the project site, the western bank may has potential for Water vole.

4.5.3 - Target Note 5 – Waterbody

The proposed development, in the absence of mitigation could result in discharge into the canal.



Plate 4.6 (L) Habitat to the North of the project site (R) – Habitat to the South of the project site.



5. Evaluation

5.1 – Designated Sites & Priority Habitats

The project site is not within any non-statutory designated sites or designated areas of Priority habitats.

5.1.1 – Conclusion

The proposed development will not have a negative impact on the surrounding non-statutory designated sites or the habitats and species associated with them as the proposed development is staying within the property boundary. The same applies for the surrounding priority habitats.

5.2 – Species Records

Species records were obtained from NEYEDC¹¹. Within the 1km search radius of the site, 84 historical records of species which have one or more designations as notable and/or protected species was identified. None of the records are from the project site. A number of the species are of particular interest to this project site: Mallard, Mute swan, Robin and Common Pipistrelle.

The tree and scrub have the potential to support breeding birds, but not waterfowl. The grassland and tall ruderal have the potential for foraging and/or commuting mammals. The trees are suitable for foraging and commuting bats.

No Water vole records has been recorded within the 1km search radius. This could be that they have not been recorded or that Water vole are not present.

5.2.1 – Conclusion

Please see chapters 6 and 7 for recommendations and enhancements.

5.3 – Project Site

5.3.1 – Habitats

The ecological value of the habitats present on site is assessed by their presence on the UK and LBAP's and their ability to support protected or notable species. Along with the priority habitat descriptions from UKBAP¹⁵, East Riding BAP¹⁶ (see below) and the habitat distinctiveness as determined by Natural England Biometric¹⁷, this site has a Moderate-High ecological value. Those habitats which meet any of these criteria and/or are considered likely to be impacted by the proposals are highlighted as notable considerations. See table below:



Habitat	UKBAP (Y/N)	East Riding BAP (Y/N)	Notable consideration (Y/N)
Grassland and marsh – Improved grassland (B4)	N	N	Y
Woodland and scrub- scrub – Dense (A2.1)	N	N	Y
Woodland and scrub – Woodland – Broad-leaved – Semi-natural (A1.1.1)	Y	Y	Y
Swamp, marginal and inundation – Marginal inundation – Marginal vegetation (F2.1)	N	N	Y

Table 5.1 – The list of habitats on site and their importance in relation to the UK and LBAP priority habitats.

5.4 – Impact Assessment in the Absence of Mitigation

5.4.1 – Grassland and marsh – Improved grassland (B4)

This habitat has a Low ecological value¹⁷ as a result of constant maintaining which has, over time reduced the diversity of the grass species present. There are no protected or notable species present. The grassland may provide a food-source for a small number of invertebrates, which in turn are a food-source for birds and small mammals.

Under the proposed development approximately all of this habitat will be cleared to: create access and buildings. The new habitats created will be of a very-low ecological value.

5.4.1.1 - Conclusion

Please see section 6.1.1 for recommendations and section 7.1 for Biodiversity enhancements

5.4.2 – Woodland and scrub - Scrub – Dense/continuous (A2.1)

This habitat has a Medium ecological value¹⁷. There are no protected or notable species present. The log piles in this habitat may provide shelter for small mammals which may forage in the project site. The scrub is also suitable for breeding birds.

Under the proposed development this habitat will be cleared and replaced with buildings that have green roofs and timber decking. This habitat will have very-low to Medium ecological value¹⁷. Without mitigation/compensation this will result in the loss of habitat for the above species. This would have a minor negative impact at site level.

5.4.2.1 - Conclusion

Please see sections 6.1.1 – 6.1.2 for recommendations and sections 7.1 and 7.3 for Biodiversity enhancements

5.4.3 – Woodland and scrub – Woodland – Broad-leaved – Semi-natural (A1.1.1)

This habitat has a High ecological value¹⁷ and is a UK BAP¹⁵ and LBAP¹⁶ Priority Habitat and due to the species present, represents a Wet woodland. There are no protected or notable species present. This habitat may provide a food-source for a number of invertebrates, which in turn are a food-source for birds and small mammals. The trees are suitable for breeding birds and the invertebrates these trees will

support may provide suitable foraging and/or commuting routes for bats. None of the trees have PRF's for bats.

Under the proposed development, 11 of the 15 trees these trees will be lost and replaced with timber decking amenity grassland. These habitats have a Very-low to Low ecological value¹⁷. Without mitigation/compensation this will result in the loss of habitat for the above species. This would have a moderate negative impact at site level. This loss will need compensating for.

5.4.3.1 - Conclusion

Please see sections 6.1.1 – 6.1.3 for recommendations and sections 7.1 - 7.3 for Biodiversity enhancements.

5.4.4 – Swamp, marginal and inundation – Marginal inundation – Marginal vegetation (F2.1)

This habitat has high ecological value¹⁷. There are no protected or notable species present.

This area of habitat has potential for Water vole; although no fields signs or burrows were identified. Under the proposed development this habitat will remain.

5.4.4.1 - Conclusion

Please see sections 6.1.4 – 6.1.5 for recommendations.

5.5 – Water vole Habitat Suitability

The Water vole Habitat suitability scored 5 – sub optimal:

5	Sub optimal	A score of 5 with a berm present will describe a sub optimal <u>soke</u> dyke. In the case of marsh dykes, where berms are rare, a score of 5 without a berm will be interpreted as a 5* dyke and be thought of as optimal. A score 5 dyke will often have a number of field signs evident.
5*	Optimal	

As no berm is present, this is interpreted as Optimal. The sites vegetation is species-poor, no field signs were identified within this section of the Canal and there are no records of Water vole within the search radius. However, it did score 5* Optimal and this needs to be taken into account. The vegetation is still flourishing due to the time of the year. It is recommended that a Water vole survey takes place in spring, when the vegetation is sparser and therefore will reveal if any burrows are present. In addition, Water voles will start to be more active and therefore, if present within this section, there burrows will be revealed and field signs will be present.

5.6 – Immediate Surrounding Habitats

Immediately to the North of the project site is improved grassland with scattered trees. The species here. To the East is the canal followed by eastern bank, which is more species diverse than the project sites bank due to the limited shade. To the South of the project site is a play area with improved grassland. There is a hedgerow between the project site and play area, which is unmanaged. To the west are residential properties with associated private gardens.

The neighbouring grasslands may provide foraging/commuting opportunities for small mammals. It is possible that such species may also commute and/or forage within the project site.



The project sites section of bank scored sub-optimal/optimal and no field signs or burrows were identified. However, the neighbouring areas may have a greater suitability or Water vole presence and this needs to be considered.

The project site, if approved will become a building site. In the absence of mitigation, chemical run-off could discharge into the canal.

5.6.1 - Conclusion

Please see sections 6.1.1, 6.1.4 and 6.1.5 for recommendations.

5.7 – Protected or Notable Species within the Project Site and Immediate Surround area

5.7.1 – GCN & other Amphibians

The data search produced no records of GCN or other Amphibians within the 1km search radius¹¹. There are ponds close to the project site, however the canal and roads are a significant barrier to dispersal¹⁸

If GCN were present in these ponds they are surrounded by immediately good terrestrial habitat and therefore are unlikely to move away as GCN prefer to stay in terrestrial habitat close to their breeding ponds¹⁹: *The most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate.*

Taking this into account, it is very unlikely that GCN would seek refuge within the development boundary because of the following factors:

- There are no ponds within the project site.
- The habitat between the ponds and the project site is improved grassland, hardstanding and flowing water. These habitats are sub-optimal for GCN commuting as it leaves GCN and other amphibians exposed to predation or even desiccation in the warmer months.

5.7.1.1 - Conclusion

No further surveys or actions are required.

5.7.2 - Bats

The data search produced 4 records of bats within the 1km search radius¹¹; all Common pipistrelle. The Semi-natural Broad-leaved Woodland may provide suitable commuting/foraging opportunities for bats. None of the trees have PRFs.

Under proposed development, 11 of the 15 trees will be cleared.

5.7.2.1 - Conclusion

No further surveys required. To minimise potential disturbance to foraging/commuting routes through/close to the proposed development, please see section 6.1.3 for recommendations and section 7.2 for Biodiversity enhancements.



5.7.3 – Badger *Meles meles*

The data search produced no records of Badgers being present within the 1km search radius¹¹. There is no sett within the project site and there was no evidence of Badger presence within the project site in the forms of: pathways, footprints, snuffle holes, scratch marks, hair follicles and latrines.

5.7.3.1 - Conclusion

Due to the form of development proposed no further surveys are needed but a PWMS will be adhered to minimise any potential impact to any potential Mammals. Please see section 6.1.1 for recommendations.

5.7.4 – Birds

The data search produced 4 different species records of birds within the 1km search radius¹¹. The Semi-natural Broad-leaved Woodland and Dense scrub have potential for breeding birds.

Under proposed development, 11 of the 15 trees will be cleared and the entire Dense scrub habitat will be cleared.

5.674.1 - Conclusion

Please see sections 6.1.2 – 6.1.3 for recommendations and section 7.3 for Biodiversity Enhancements.

5.7.5 – Reptiles

The data search produced no records of Reptiles being present within the 1km search radius¹¹: The project site has Low reptile potential due to the following factors²⁰:

- Vegetation – The habitat where the development will take place doesn't have no sufficient diversity in the structure to support reptiles.
- Extent – The project sites area is too small to support a large population of reptiles.
- Aspect – The project site has varying areas of shade throughout the day but there are no suitable basking areas.
- Topography – There are no suitable slopes within the project site. The Western bank is NE facing, which is sub-optimal for basking.
- Connectivity – Connectivity is suitable but the immediate habitats in all bearings are sub-optimal.
- History – There are no records of Reptiles present within 1km of the project site.

5.7.5.1 - Conclusion

No further surveys or actions are required.

5.7.6 – Flora

There are no notable or protected species of plant present within the project site.

5.7.6.1 - Conclusion

No further surveys are required.



5.7.7 – Otter *Lutra lutra* and Other protected or notable species

The project site is unsuitable for Otter and therefore will not be discussed.

The data search produced no records of Hedgehog presence within the 1km search radius¹¹. The Dense scrub and 'Log pile' provide potential shelter for Hedgehogs. The Improved grassland and Dense scrub are also suitable for foraging.

5.7.7.1 - Conclusion

No further surveys needed and a Precautionary Working Method Statement (PWMS) will be adhered to minimise any potential impact to any Hedgehogs or other species. Please see section 6.1.1 for recommendations.



6. Recommendations

6.1– Target Note Recommendations

6.1.1 - Badger and other Mammal Species (TN1)

Badger foraging and commuting routes are not legally protected²¹ but under the Animal Welfare Act 2006 animals must still be able to exhibit normal behaviour, e.g., foraging for food and water. Pre-during construction, Badgers and other mammals may still commute/forage within or close to the project site.

The following PWMS will be adhered to minimise any potential impact to any potential Badgers and other mammals commuting through the project site and other species during the proposed development, please see below.

6.1.1.1 – PWMS Mammals – Existing Vegetation and Log/Rubbish Piles - Clearance phase

- The cutting of the dense scrub will optimally take place before the winter period (between 1st September – 30th November to co-inside when breeding birds are not present) to avoid hibernating Hedgehogs, if present.
- The dense scrub will be cut down to approximately 15cm²² and left for 24hrs. This will make these habitats unfavourable and therefore any potential small mammals present will leave on their own accord. After the 24hr period the scrub will be cut down to ground level.
- Vegetation will remain short (<5cm) during the development.
- Any vegetation piles left for over 24hours are to be cleared by machinery, working from the top of the pile, down to the ground. The 'ground layer' of vegetation pile, where safe to do so will be removed by hand tools and not machinery. If small mammals are present, it will give them a chance to vacate these pile on their own accord. Vegetation piles <12 hours can be removed by machinery²².
- If any animals are found they will be safely removed and taken to eastern boundary as this has the greatest connectivity.

6.1.1.2 – PWMS - During development

- Before and during the construction phase the contractors and people involved in the development should ensure they do not create temporary refuge sites. This will be done by ensuring heavy machinery left overnight is on the cleared dense scrub habitat²³.
- Building materials and associated materials like plastic sheeting should be kept off the ground (e.g., on a pallet)²³.
- Rubble and other associated building materials should be bagged up and placed on the cleared dense scrub habitat and removed as soon as possible²³.
- Any Machinery left overnight should be placed on the cleared dense scrub habitat and fenced off with ground level fencing²⁴.
- The machinery will be checked on a daily basis for animals prior to work commencing just in case they have managed to breach the fencing and become trapped in any machinery present²⁴.
- If, by mistake this is not adhered to, then checks should be made each day prior to work commencing.
- Perimeter fencing should be installed around any ground works and fitted tightly to the ground so any animals cannot get under the fencing²⁴. The ground works will be checked on a daily basis for animals just in case they have managed to breach the fence.

- Any excavations that will be left overnight should be covered over or equipped with a number of ramps and hydrophobic boards (loft insulation boards) to allow otherwise trapped mammals/amphibians/reptiles a means of escape^{23,24}.
- Any piping >70mm in diameter will be capped off each day and re-opened during working daylight hours.

6.1.1.3 – What to do if Protected Species are Encountered

- In the highly unlikely event that GCN, Badgers or Reptiles are present at the start or during the development work, works must be halted until a licensed GCN holder (for example Crow Ecology 07813900097) can attend the site and give further advice where necessary^{4,24}.
- GCN should not be handled by unlicensed personnel. If it is absolutely necessary to remove GCN from the premises for overruling health and safety reasons or to avoid it being harmed gloves must be worn and the GCN placed carefully in a breathable container (if found on land) or a bucket (if found in water) containing the water and placed in a dark, quiet place, safe from predators, until a licensed GCN holder arrives⁴.
- The Ecologist will contact Natural England. Together they will examine a way forward for the site.
- In the highly unlikely case that a solution cannot be found, works will cease until a Natural England License has been granted.

6.1.2 – Birds (TN2)

The Dense scrub and Semi-natural Broad-leaved Woodland are suitable habitats for breeding birds. Under the proposed development, the Dense scrub will be cleared and 11 of the 15 trees will be cleared. **It is strongly recommended that any clearing of the above habitats takes place outside of the breeding bird season (1st September – 28th February).** Prior to clearing and works close to the habitats named above, the guidance below will be adhered to.

6.1.2.1 - Good practice for Breeding Birds⁶

No works can take place between 1st March-31st August⁶ if breeding birds are present. This is the time when adult birds are rearing their young. It is an offence under the WCA 1981 to in relation to this outline planning application to:

- intentionally kill, injure or take birds
- intentionally take, damage or destroy a nest while it's being used or built
- intentionally take or destroy a bird's egg/s

If works need to be carried out during the nesting period (1st March to 31st August) checks should be made by an ecologist for nesting birds, the day before the works are due to commence⁶. Any nesting birds found should be left to complete their breeding cycle (e.g., until the young have fully fledged) before any works can take place.

6.1.3 – Birds and Bats (TN2,3)

Under the proposed development, the habitats where birds may breed and bats may forage (neighbouring scattered trees) and recommended not illuminated by artificial light.

6.1.3.1 - Lighting consideration²⁵

Although the foraging and commuting routes of bats are not legally protected, the proposed development may create an increase in artificial light. Light pollution may have an effect on the commuting and foraging routes of neighbouring bats. Such effects may reduce their survival chances and the possibility of breeding.

The same is for bird species; artificial light may disturb breeding birds and as such may reduce their survival chances and the possibility of breeding. With regards to planning, it is an important consideration to manage and reduce the impact lighting may have on bats and breeding birds.

Under the proposed development there are no proposed external lighting to be installed on the lodges. However, if this changes in the future, then the below lighting specifications are recommended.

Mitigation Strategy	Impact
No Light	The best solution for bats but probably not for the public
Variable lighting regimes (VLR)	This is controlled by a CMS (Central Monitoring System). This involves switching off or dimming lights for a period in the night at set times. This would be useful for high periods of bat activity for example, emergence and commuting.
Spacing and Height	Lights should be spaced as far apart as possible but not at the expense of coverage. The height should be as low as possible to the ground and there-by reducing the illuminated light.
Reducing Intensity	This will have the same effect as dimming and will result in less light pollution.
Changing the Light Type	Avoid lights that have a short blue/white wavelength. Long wavelength types such as warm white will be suitable. Avoid lights with a high UV content. Use UV filters or glass housings to reduce UV emittance.
Reduce Spill	This can be done by using reducing the angle under 70° or by installing accessories to direct the light.

Table 6.1 – Mitigation strategies to reduce the impact of lighting on bats and birds.

6.1.3.2 – Project Site Lighting

6.1.3.2.1 - Lodges

If the Lodges are to have any external lighting installed then lighting will be downlighting only with cowling on the top. This will minimise light spread and light pollution.

External lighting, where either a bat or bird box is located, will be the same specification but operated on a PIR (passive infra-red) sensor. This will minimise light spread, light pollution and duration. Elevations that are adjacent to the neighbouring scattered trees and are within 5m of these habitats is only recommended to have this lighting specification. This action will maintain dark corridors around the site and only illuminate the site when the user needs it.

6.1.4 – Water Vole (TN4)

The Water vole Habitat Assessment scored Sub-optimal-Optimal and therefore a further survey is required. A Water vole survey involves searching the banks of the watercourse (in this case the canal bank) for evidence of Water vole, including: burrows, latrines, footprints, runs in the vegetation, grazed 'lawns,' feeding remains and actual sightings.

The survey takes place between April – September. To confirm presumed absence (no burrows or field signs were present), two site visits spread through the surveying season will be required.

6.1.5 – Development close to the Canal (TN5)

6.1.5.1 – Non-Native species

No non-native species were present at the time of the site survey in this section of Canal or the site itself. The project site will become a development site and this will result in a high footfall and many different

machines and building materials coming onto the site. There is the remote possibility that Non-native species maybe brought onto the project site during development.

To minimise the potential risk of Non-Native species and accidental encroachment onto the Canal, 'HERAS' fencing or post and hazard tape, approximately 30m in length on the Eastern boundary will be sited 2m from the Canal. For operations within 2m of the Canal, personnel will carry out the 'Check, clean, dry' policy²⁶. Check that any products have come from a reputable company will ensure the seeds planted are not contaminated. Cleaning equipment including footwear with disinfectant (30% bleach) prior to being within this buffer zone will ensure no contaminants enter the Canal and then drying equipment will ensure no transmission into another environment.

Following these procedures should result in minimal risk to the Canal, however if Non-native species appear during the development phase, then this needs to be reported to the Environment Agency.

6.1.5.2 – Siltation

Soil erosion; most notably during vegetation clearance, ground clearance, grounds works are a natural by-product during development. Developments near a waterbody (in this case the Canal) can lead to sediment run-off into the waterbody and affect the water quality and thereby also affect any aquatic life.

To reduce sediment run-off, a 'Silt fence' will be erected. Silt fences stop sediment entering a waterbody and act as a water filter, allowing filtered water to enter the waterbody. They can also stop other pollutants from entering a waterbody. An example of such a product can be seen at <https://frogenvironmental.co.uk/product/silt-fence/>. The silt fence will be installed as follows;

- The silt fence will be erected prior to the development and will remain until the development has been completed.
- The silt fence will be erected 2m from the shoreline of the bank. The silt fence will be erected to cover the length of the development close to the Canal (approximately 30m length). Please see figure 6.1.
- After the development has been completed, allow the silt collection along the silt fence to dry.
- After drying, remove the silt and silt fence off-site.



Figure 6.1 – Recommended location of silt fence (not to scale or accuracy)

6.1.5.3 – Pollution Impacts

Below sub sections have followed the *Pollution prevention for businesses* guidelines²⁷.

In addition to the silt fence discussed in the above section, to reduce any further potential pollution impacts to the drain the following guidelines will be adhered to during the construction phase:

6.1.5.3.1 – Concrete and Cement

Concrete and cement are very alkaline and corrosive. To prevent concrete and cement potentially entering the drain the following will be adhered to:

- The mixing and washing areas will be sited at least 10m away from the canal.
- Wash water should either be discharged down a foul sewer (must have permission from the local sewerage first) or contain the wash waste for authorised disposal off-site.

6.1.5.3.2 – Oils & Chemicals

No oils and chemicals

- If storing oils and/or chemicals on-site, these will be stored at least 10m away from the canal and will have a secondary containment system such as a bund that is suitable for the product you are storing.
- Use biodegradable oils, if possible, especially near the drain
- Have a spill kit on-site
- Remove any damaged or leaking containers immediately and dispose of using a registered waste contractor.

6.1.5.3.3 – Site Security

Vandalism of a site can cause pollution. To minimise vandalism the following steps are recommended if applicable:

- Fitting lockable valves and trigger guns on pipework from storage containers on any containers containing chemicals or oil.
- Installing ant-siphon valves on pipework from containers
- Installing armoured hoses
- Storing drums in a locked container/unit
- Ensure the gates are locked and the fencing is secure.

6.1.5.3.4 – Refuelling of vehicles and/or Construction related Machinery

Refuelling can cause accidental spillages and therefore result in pollution.

- Refuel machinery at least 10m away from the canal.
- Place a dip tray under pumps/hoses/valves during refuelling
- Keep a spill kit close
- Supervision at all times during refuelling
- Don't overfill the tank
- Check hoses and valves regularly for any defaults
- Turn off valve when not in use

6.1.5.3.5 - Materials

Sealant, coatings, adhesives and glazing can be toxic to plants and animals if released in to the environment.

- If storing these products on-site they should be stored like any other chemicals in a sealed, locked container.
- If possible, use water-based or low-solvent products
- avoid products containing lead as a drying agent and those containing hazardous solvents (toluene or chlorinated hydrocarbons)

6.1.5.3.6 - Waste

- Optimal waste storage location at least 10m from the canal.
- Ensure site waste is removed by an approved agent.
- Recycle waste where possible
- Remove any waste generated frequently; this will prevent the wind blowing the waste away and possibly into the drain.



7. Project Site Biodiversity Enhancement

The measures set out in Chapter 7 help comply with: Natural Environment and Rural Communities Act 2006 (NERC)²⁸, the National Planning Policy Framework (NPPF)²⁹ and local planning policies (ENV4)³⁰. In addition, further biodiversity enhancements have been recommended to fulfil these policies and increase biodiversity on this site post-construction.

7.1 – Green Roofs

The roofs of the lodges will be Green Roofs. It is recommended that a 'Biodiverse Green Roofs' are installed. These have a Medium ecological value¹⁷ and will provide more compensation than an 'extensive green roof'. It is recommended that the roofs are sown with Sedums and wildflowers and will include habitats such as small log piles, stones and sand piles. Once installed, it will provide a food source for invertebrates and birds. A green roof company such as, for an example; <https://zinco-greenroof.co.uk/systems/biodiversity-green-roof> would provide exact specifications of the roof.

7.2 – Wall-mounted Bat box

Due to the composition and materials of the walls being constructed, integrated bat boxes will not be suitable for this and therefore an external bat box is recommended.

7.2.1 – Specification - Maxi Beaumaris Woodstone Wall Mounted Bat box

This crevice box will accommodate species such as: Pipistrelle sp., Natterer's, Whiskered, and Brandt's bats. Common pipistrelle have been identified within 1km of the project site¹¹. 1 box is recommended. Please see appendix 5 for an example of this box.

7.2.2 – Location

The box will be cited with the entrance in a South-facing bearing. Please see figure 7.1. The box will be placed³¹:

- At least 4m above the ground
- Sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west)
- The box is 'self-cleaning' so very little maintenance is needed.

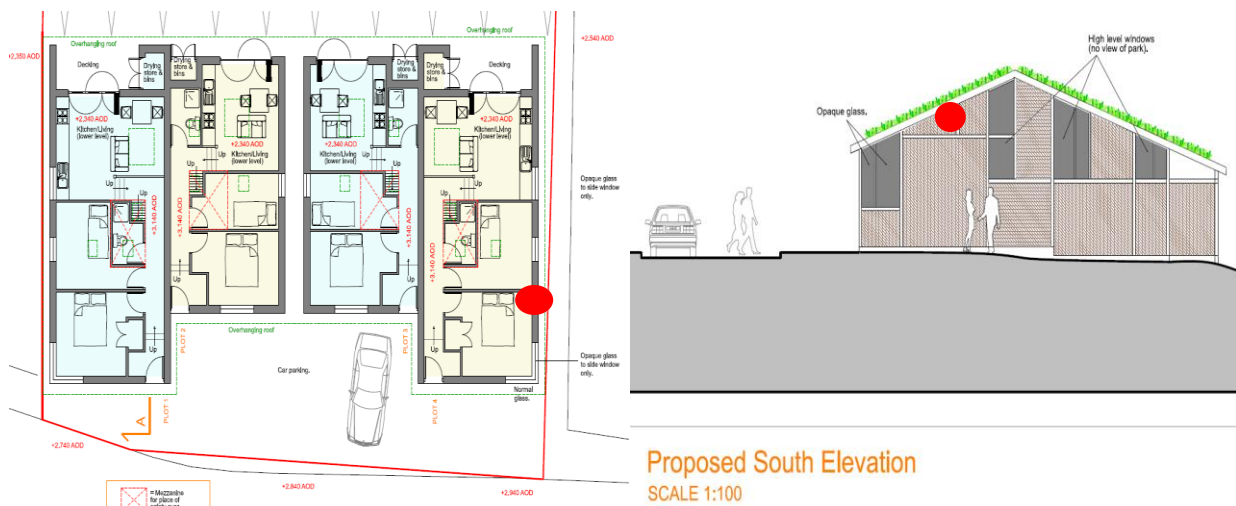


Figure 7.1 – The location of the Maxi Beaumaris Woodstone Wall Mounted Bat box (red circle)

7.2.3 – Location Justification

The box selected will accommodate crevice dwelling species that are present within the rural setting this development is in. The box will have a South-facing bearing as this is one of the favoured bearings for bats, most notably during the summer months⁵.

This box will create a potential roost for bats that the site did not have had previously and it is allowing the bats to forage/commute closer to their preferred foraging habitats along the ecotones of woodland and waterbodies within the surrounding landscape.

7.2.4 – Timings

The box will be in place post-development. The client will forward photos of these boxes once installed to the LPA.

7.3 – Wall-mounted Bird Box

Again, due to the composition and materials of the walls being constructed, integrated bird boxes will not be suitable for this and therefore external bird boxes are recommended.

7.3.1 – Specification – Small Eco Bird Box

Although not Woodcrete, this bird box is made from recycled plastic which is eco-friendly and durable. Please see appendix 6 for an example of this box. 3 boxes are recommended. A 25mm, 28mm and 32mm entrance hole will allow a greater diversity of birds to access the boxes.

7.3.2 – Location

The location of this boxes will be cited on the North elevation. Please see figure 5.2

- The boxes will be located close to the eaves. The eaves of the buildings will also provide a level of protection from rainfall³².

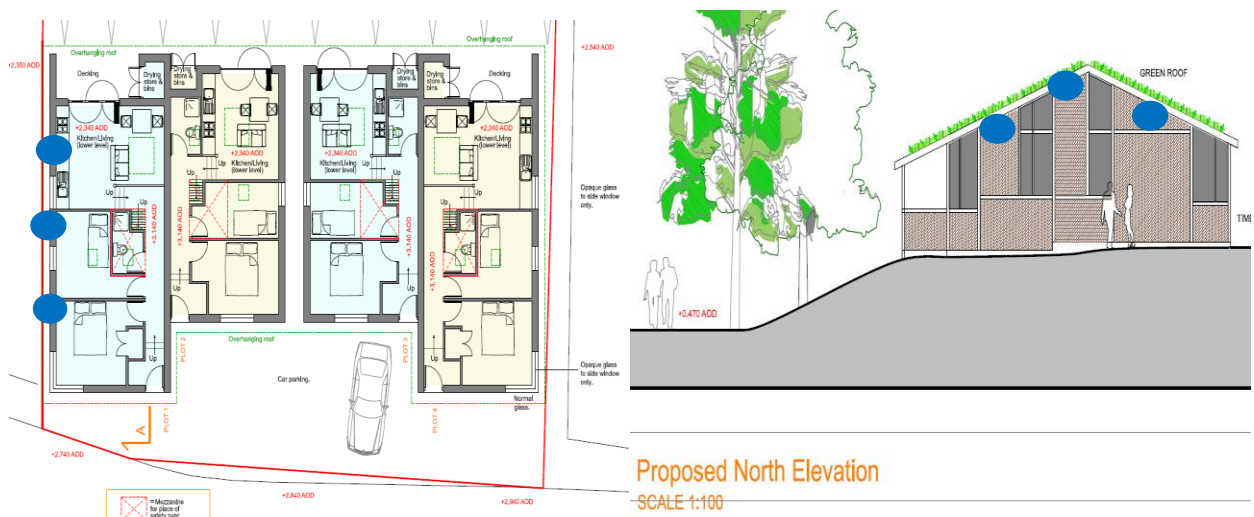


Figure 7.2 – The locations of the Small Eco Bird Box (blue circle)



7.3.3 – Location Justification

The boxes will be cited with a North-facing bearing to avoid strong sunlight and prevailing wind and rain³². The prevailing winds in Newport are more frequent in a South to SW bearing³³.

7.3.4 – Timings

The boxes will be in place post-development. The client will forward photos of these boxes once installed to the LPA.



8. Summary of Recommendations

Habitat or Species	Timing	Location/Activity	Notes
Badger and other Mammal species	Pre-During construction	Entire site	PWMS – Please see section 6.1.1
Breeding Birds	1 st March – 31 st August	<ul style="list-style-type: none"> • Dense/continuous scrub • Semi-natural Broad-leaved woodland 	An Ecologist will need to be on site if any works to these habitats take place during this time. Please see section 6.1.2.
Bats & Birds	Post-construction	All elevations with varying specifications	Please see section 6.1.3.
Water vole	Pre-development – between April – September.	Water vole survey. Length of the Eastern boundary	Please see section 6.1.4.
Canal	Pre-During construction	Eastern boundary	PWMS – Please see section 6.1.5
Project site Biodiversity Enhancement	Post-construction	<ul style="list-style-type: none"> • Green roof • Bat box • Bird boxes 	To comply with NERC, NPPF and Local policy. Please see Chapter 7



I hope that this report provides all the necessary information, but should any further information be needed please do not hesitate to contact the author.

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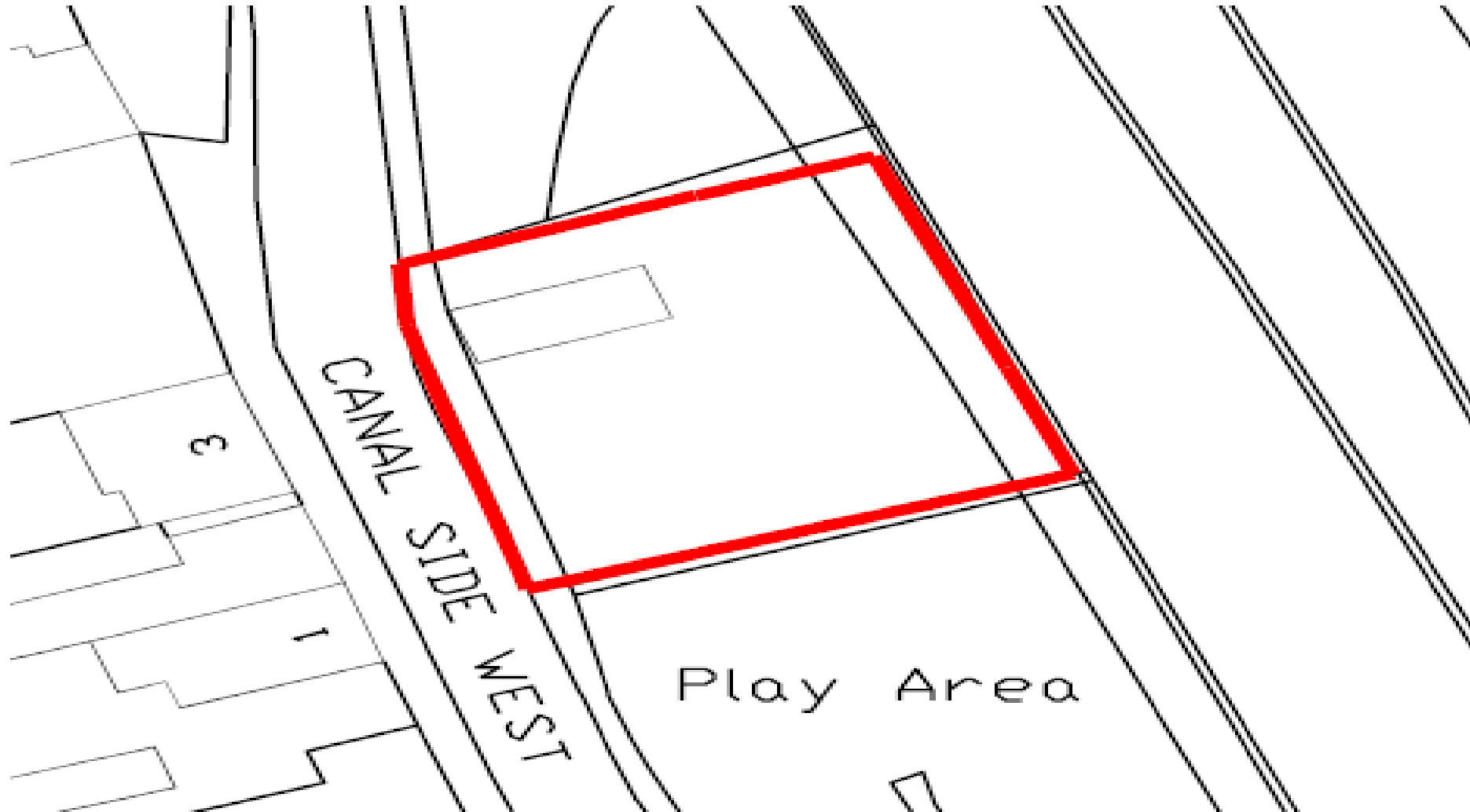


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10. Appendices

Appendix 1 – Existing Layout





Appendix 2 – Proposed layout

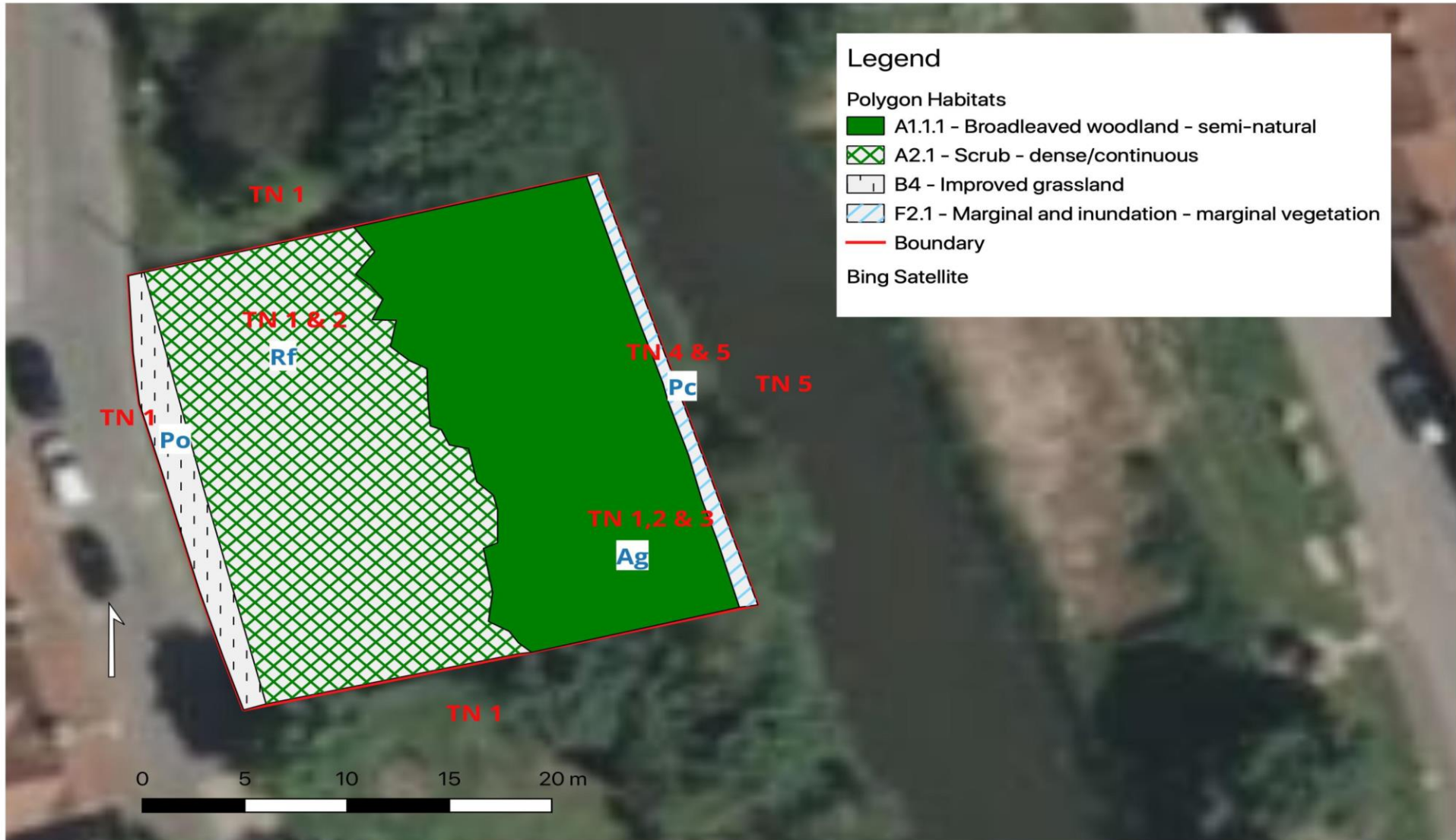


OS Map
SCALE 1:1250



General Notes							
NOTES -							
This drawing must NOT be scaled.							
Work shall not commence until planning and building regulation approvals have been obtained in full.							
All dimensions and levels to be checked on site by contractor and any discrepancies to be reported to the architect and client prior to commencement of work on site.							
All drains & services to be located by contractor.							
This drawing is for building control purposes only. Detail design and specification shall be the sole responsibility of the contractor.							
The Contractor is to allow for those items of work which are not specifically identified in the Contract Documents but which it is reasonable to expect an experienced contractor to identify from them as being necessary (such as but not limited to the following - screens, noggin, supports, flashings etc).							
Copyright							
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Drawn by:	Checked by:						
CK	DE						

Appendix 3 – Phase 1 Habitat Map with Target Notes in Red and Dominant Species (Blue)





Appendix 4 – Species List

Plants - Common Name & Scientific Name	Animals – Common Name & Scientific Name
Annual Meadow Grass <i>Poa annua</i>	
Perennial Rye Grass <i>Lolium perenne</i>	
Red fescue <i>Festuca rubra</i>	
Common couch <i>Elymus repens</i>	
Yellow oat grass <i>Trisetum flavescens</i>	
Cocksfoot <i>Dactylis glomerata</i>	
Dandelion <i>Taraxacum officinale</i>	
Greater Plantain <i>Plantago major</i>	
White Clover <i>Trifolium repens</i>	
Ribwort plantain <i>Plantago lanceolata</i>	
Daisy <i>Bellis perennis</i>	
Rough hawkbit <i>Leontodon hispidus</i>	
Cow Parsley <i>Anthriscus sylvestris</i>	
White-Dead Nettle <i>Lamium album</i>	
Field Bindweed <i>Convolvulus arvensis</i>	
Sow Thistle <i>Sonchus oleraceus</i>	
Dogwood <i>Cornus sanguinea</i>	
Snowberry <i>Symphoricarpos albus</i>	
Bramble <i>Rubus fruticosus</i>	
Sycamore <i>Acer pseudoplatanus</i>	
Elder <i>Sambucus nigra</i>	
Common nettle <i>Urtica dioica</i>	
Creeping thistle <i>Cirsium arvense</i>	
Alder <i>Alnus glutinosa</i>	
Downy Birch <i>Betula pubescens</i>	
Silver Birch <i>Betula pendula</i>	
Apple <i>Malus domestica</i>	
Hogweed <i>Heracleum sphondylium</i>	
Ground Ivy <i>Glechoma hederacea</i>	
Red Dead Nettle <i>Lamium purpureum</i>	
Common Reed <i>Phragmites australis</i>	
Rosebay willowherb <i>Chamaenerion angustifolium</i>	




Appendix 5 – External Wall-Mounted bat box

Beaumaris Woodstone Bat Box

Manufacturer: [Vivara Pro](#)

- Suitable for external walls
- Single narrow cavity for crevice-dwelling species
- Available in two sizes



•  Maxi **In stock**
£52.99
#231797

Additional images



About this product

This bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. This means that, not only does the box have excellent insulating properties maintaining a more consistent temperature throughout the year, it also provides excellent protection from predators. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight.

Suitable for attaching to external walls and should be sited as high up on the façade as possible, at a height of at least 3m from the ground. Avoid siting under artificial lights. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.

Maxi:

- * Height: 50cm
- * Width: 38cm
- * Depth: 7cm
- * Weight: 8kg

Source – <http://www.nhbs.com/>

Please note – This is just an example of the type of suitable box. Other companies and brands are available.

Appendix 6 – Eco Small Bird Box

A 25, 28 and 32mm Opening required

- Provides a robust, long-lasting home for most common garden birds
- Made from eco-friendly recycled plastic and FSC Certified OSB
- Available with three different hole sizes



- **32mm Entrance Hole In stock**

£24.50

#241638

About this product

This nest box consists of a weatherproof outer shell made from UV stabilised 100% recycled plastic. Inside the outer shell is a wooden nest box to provide the ideal environment for birds to nest in. The wooden box has drainage holes in the base and can be removed from the plastic case. The outer shell has been precision cut and uses an ingenious system of tabs to hold it together. This further extends the lifespan by ensuring that there are no metal fixings that could rust or degrade over time.

The internal compartment is constructed from FSC-Certified Oriented Strand Board, which is made from flakes of wood waste or from saplings thinned from forests to make space for larger trees. If you need to check or clean the box, simply twist the fastening at the bottom and the wooden nesting chamber will slide out. The outer shell is made from recycled board which is itself made from discarded bale wrap, fertiliser bags and other plastic waste, gathered mostly from farms across the UK.

These nest boxes are available with a choice of three hole sizes: 25mm, 28mm and 32mm. The 25mm hole is primarily suitable for the smallest tit species such as blue tits, coal tits and marsh tits. The 28mm hole will attract all of these species as well as great tits, crested tits and tree sparrows. The larger 32mm hole will attract a large range of species including blue tits, coal tits, marsh tits, house sparrows, great tits, nuthatches and pied flycatchers.

Fixing to the wall or tree is easy using the three concealed mounting holes in the back of the box (located opposite the entrance hole for easy access). Often this is the only fixing needed, but a further hole is provided at the base if required for stability. The easiest way to mount the box is to remove the inner compartment, fix the outer shell onto the tree or wall then slide the inner roost chamber back into the box and secure it in place.

The Eco Small Bird Box is designed and manufactured in the UK.

Specification

- * Materials: Recycled LDPE plastic and FSC Certified OSB
- * Finish: Non-toxic water-based stain and preservative
- * Dimensions: 26cm x 17cm x 17cm (H x W x D)
- * Weight: 1.1kg
- * Fixing: Three concealed keyholes and further fixing hole at base

Source – <http://www.nhbs.com/>

Please note – This is just an example of the type of suitable box. Other companies and brands are available.



Appendix 7 - Wildlife Legislation and Planning Policy

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The long title of the WCA 1981 as amended;

An Act to repeal and re-enact with amendments the Protection of Birds Acts 1954 to 1967 and the Conservation of Wild Creatures and Wild Plants Act 1975;

- to prohibit certain methods of killing or taking wild animals;
- to amend the law relating to protection of certain mammals;
- to restrict the introduction of certain animals and plants;
- to amend the Endangered Species (Import and Export) Act 1976;
- to amend the law relating to nature conservation, the countryside and National Parks and to make provision with respect to the Countryside Commission;
- to amend the law relating to public rights of way; and for connected purposes.

Animals

Animals are protected under Schedule 5 of the WCA. It is illegal to;

- capture, kill, disturb or injure animals deliberately
- damage or destroy a breeding or resting place
- obstruct access to their resting or sheltering places (deliberately or by not taking enough care)
- possess, sell, control or transport live or dead animals, or parts of them
- take eggs

Birds

Birds, their eggs and nest are protected under by UK law under the following act:

Wildlife & Countryside Act (as Amended) 1981: Schedules 1-4 and in some cases 9.

To summarise, you would be breaking the law by;

- intentionally kill, injure or take birds
- intentionally take, damage or destroy a nest while it's being used or built
- intentionally take or destroy a bird's egg/s
- possess, control or transport live or dead bird, or parts of them, or their eggs
- sell birds or put them on display for sale
- use prohibited methods to kill or take birds

Birds that are listed as a schedule 1 bird are provided further protection. Additionally, it is an offence to:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young
- disturb their dependent young

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

The Conservation of Habitats and Species Regulations 2017 is an EU directive and consolidates all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species. These sites form a network termed Natura 2000 and include Special Areas of Conservation and Special Protection Areas. All European protected species and their resting places are listed in Annex IV and some bat species are also listed in Annex II giving those species even greater protection. Section 43 of this law states that it is an offence to:

- capturing, killing, disturbing or injuring European protected species deliberately
- damaging or destroying a breeding or resting place
- obstructing access to their resting or sheltering places (deliberately or by not taking enough care)
- possessing, selling, controlling or transporting live or dead protected species, or parts of them
- taking eggs

The Natural Environment and Rural Communities (NERC) Act (2006)

'An Act to make provision about bodies concerned with the natural environment and rural communities; to make provision in connection with wildlife, sites of special scientific interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes'.

In regards to the planning process sections 40 and 41 are of particular importance:

'Section 40 (1) 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.'

Section 41 lists habitats and species of primary importance to the conservation of biodiversity therefore making these habitats and species a consideration in the planning process.'

National Planning Policy Framework (NPPF) (July 2021)

This policy states under section 15 'Conserving and enhancing the natural environment' that;

174.

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

175. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

176. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while

development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

177. When considering applications for development within National Parks, the Broads and Areas of Outstanding Natural Beauty, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

178. Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 176), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

Habitats and biodiversity

179. To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

180. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

181. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

182. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Department for Communities & Local Government Circular 06/2005 Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System

'This circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance' (Department for Communities and Local Government, 2005).

The 'UK Post-2010 Biodiversity Framework' (July 2012)

The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP and 'Conserving Biodiversity – the UK Approach'. It is the result of a change in strategic thinking. The UKBAP is still used as a source of reference with regards to habitats and species. UK Biodiversity Action Plan was a government initiative and contains a list of priority habitats and species of conservation concern in the UK which are the same as those listed within Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006. The plan also outlines biodiversity initiatives designed to enhance their conservation status. The UKBAP requires conservation of biodiversity to be addressed at a county level via a Local BAP and are usually targeted towards species of conservation concern within each separate area.

UK Biodiversity Action Plan (UKBAP) and Local BAP

UK BAP priority species and habitats were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). The original lists of UK BAP priority species and habitats were created between 1995 and 1999, and were subsequently updated in 2007, following a 2-year review of UK BAP processes and priorities, which included a review of the UK priority species and habitats lists.

The aim of the 'Species and Habitats Review' was to ensure that the UK BAP lists of priority species and habitats remained up-to-date and focussed on the correct priorities. This was the first full review of the lists, generated over 10 years previously, and provided an opportunity to take into account emerging new priorities, conservation successes, and the huge amount of new information that had been gathered since the original lists were created. Selection of priority species and habitats for the priority lists followed consideration by expert working groups against a set of selection criteria, based on international importance, rapid decline, high risk, and habitats of importance for key species.

As a result of new drivers and requirements, the 'UK Post-2010 Biodiversity Framework, published in July 2012, has succeeded the UK BAP. In particular, due to devolution and the creation of country-level biodiversity strategies, much of the work previously carried out under the UK BAP is now focussed at a country level.

The UK BAP lists of priority species and habitats remain, however, important and valuable reference sources.

LBAP have two targets: to reflect and help implement the national priorities identified in the UK Action Plans, and to identify and address local priorities and local distinctiveness.

The Badgers Act 1992

Badgers and their setts are protected by the following legislation: The Badger Protection Act 1992. To summarise, it would be illegal to;

- intentionally capture, kill or injure a badger
- damage, destroy or block access to their setts
- disturb badgers in their setts
- treat a badger cruelly
- deliberately send or intentionally allow a dog into a sett
- bait or dig for badgers

You are also breaking the law by doing any of the following;

- have or sell a badger, or offer a live badger for sale
- have or possess a dead badger or parts of a badger (if you got it illegally)
- mark or attach a marking device to a badger

But there are exceptions. Licences to undertake some actions can be issued if it is justified, for example where a badger sett is found on a proposed site for a road or housing development.

Local Planning Policy

The East Riding Local Plan 2012 – 2029 Strategy Document outlines the council's planning policy targets. Policy ENV4 is the leading planning policy with regards to biodiversity.

Policy ENV4: Conserving and enhancing biodiversity and geodiversity

- A.** Proposals that are likely to have a significant effect on an International Site will be considered in the context of the statutory protection which is afforded to the site.
- B.** Proposals that are likely to have an adverse effect on a National Site (alone or in combination) will not normally be permitted, except where the benefits of development in that location clearly outweigh both the impact on the site and any broader impacts on the wider network of National Sites.
- C.** Development resulting in loss or significant harm to a Local Site, or habitats or species supported by Local Sites, whether directly or indirectly, will only be supported if it can be demonstrated there is a need for the development in that location and the benefit of the development outweighs the loss or harm.
- D.** Where loss or harm to a National or Local designated site, as set out in Table 9, cannot be prevented or adequately mitigated, as a last resort, compensation for the loss/harm must be agreed. Development will be refused if loss or significant harm cannot be prevented, adequately mitigated against or compensated for.
- E.** Proposals should further the aims of the *East Riding of Yorkshire Biodiversity Action Plan (ERYBAP)*, designated Nature Improvement Areas (NIAs) and other landscape scale biodiversity initiatives. To optimise opportunities to enhance biodiversity, proposals should seek to achieve a net gain in biodiversity where possible and will be supported where they:
 - 1.** Conserve, restore, enhance or recreate biodiversity and geological interests including the Priority Habitats and Species (identified in the *ERYBAP*) and Local Sites (identified in the *Local Sites in the East Riding of Yorkshire*).
 - 2.** Safeguard, enhance, create and connect habitat networks in order to:
 - i.** protect, strengthen and reduce fragmentation of habitats;
 - ii.** create a coherent ecological network that is resilient to current and future pressures;
 - iii.** conserve and increase populations of species; and
 - iv.** promote and enhance green infrastructure.

