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Banbury Oil Depot

Ecological Appraisal

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Client	Framptons
Project	Banbury Oil Depot
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	Name	**Position**	**Date**
Originated	Jamie Peacock	Ecologist	29 October 2020
Reviewed	Peter Newbold	Principal Ecologist	06 November 2020
Updated	Peter Newbold	Principal Ecologist	16 March 2021
Updated	Peter Newbold	Principal Ecologist	15 September 2021
Approved for issue to client	Peter Newbold	Principal Ecologist	15 September 2021
Issued to client	Peter Newbold	Principal Ecologist	15 September 2021
Latest masterplan attached	Tom Flynn	Principal Ecologist	01 February 2022

Contents

1 Summary

Client and commission date	BSG Ecology was commissioned by Framptons on behalf of Motor Fuel Limited on the 13 July 2020 to undertake an Ecological Appraisal to support an Outline Planning Application for the Banbury Oil Depot Site. This report and assessment has been updated in September 2021 to reflect the changes to the scheme design and most recent landscape plans.
Date and method of surveys	An extended Phase 1 habitat survey of the Site, and adjacent habitat (where access permitted), was conducted on the 24 August 2020.
Key findings	No statutory designated sites were noted within 2 km of the Site. 2 non-statutory sites were noted within 2 km of the Site. These consisted of Grimsbury Reservoir (located 1.3 km north of the Site) and The Saltway, Banbury (east) which is located 1.7 km south west from the Site. The Site is mainly made up of low ecological value habitats; buildings, hard standing, amenity grassland and scattered scrub. The only habitat of any ecological value within the Site is the dense / continuous scrub running along the western boundary between the Site and River Cherwell, although this is a common and widespread habitat and not a Habitat of Principal Importance (HPI). The River Cherwell runs adjacent to the Site along the western boundary. Being a main river this habitat is likely to be a HPI. All the buildings on Site were assessed as having negligible potential to support roosting bats. Areas of dense / continuous scrub offer opportunities for roosting and foraging bats and nesting birds. No evidence confirming the presence of water vole or otter was recorded within the Cherwell, however otter are likely to use this habitat for foraging and commuting. No further protected or notable species were considered further due to a lack of records, habitat on Site or connecting habitat.
Potential impacts and recommendations to avoid / reduce impacts	The proposed development will result in the loss of low ecological value habitats including buildings, hard standing, improved and amenity grassland and scrub. Potential for roosting bats to be impacted should trees with roosting potential be removed to facilitate the enhancement of the River Cherwell. Any trees requiring felling within the dense continuous scrub will be assessed by an ecologist for roosting bat potential and the need for further surveys Potential impacts on roosting and foraging bats from increased lighting. A lighting strategy should be produced to limit the impacts of any increased lighting on important commuting and foraging features for nocturnal

	animals (specifically the River Cherwell corridor). Potential for nesting birds to be impacted by vegetation and building removal. Vegetation clearance works and building demolition will be undertaken outside of the breeding bird season. Should this not be possible, a suitably qualified ecologist should carry out a nesting bird check in advance of works to confirm the absence (or otherwise) of nesting birds. To avoid harm to hedgehog excavations should be covered or ramps installed overnight to allow animals to escape. Areas of scrub should be checked prior to removal for presence of hedgehog.
Ecological enhancement opportunities	Ecological enhancement opportunities (to seek a net gain in biodiversity) include: • Incorporation of green roofs within the design (either on the buildings or as roofs to car ports). • Enhancing the river corridor to benefit biodiversity • Enhancing the Site for invertebrates with insect hotels and wildflower / grassland planting • Landscape planting to benefit biodiversity with pollinator friendly species • Inclusion of bird and bat boxes on the retained trees and new buildings (where appropriate) on Site.

2 Introduction

Background to commission

2.1 BSG Ecology was commissioned on the 13 July 2020 to undertake an Ecological Appraisal of a parcel of land located at Banbury OX16 5TB, Oxfordshire, here on referred to as 'the Site'. The Site which is approximately 0.93 ha, is centred at Ordnance Survey National Grid Reference SP 46150 40319.

2.2 An Outline Planning Application is being submitted for the redevelopment project are a residential led development with a commercial / community building and a car park with ecological sensitive landscaping along the river front.

Aims of the study

2.3 This Ecological Appraisal report brings together the results from the desk study and field surveys and assesses any potential impacts that may arise as a result of the proposed development. Recommendations are made to ensure that the proposed development complies with planning policy and legislation in relation to protected species and habitats.

2.4 Existing Government policy for England on biodiversity net gain is set out in the National Planning Policy Framework (NPPF, 2019) (see Appendix 1). Biodiversity net gain is also reflected within the Government's 25 Year Plan to Improve the Environment (2018). Net gain is also addressed within the Cherwell District Local Plan, Policy ESD 10 (Cherwell Local Plan, 2015) which states:

"In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources"

Personnel

2.5 Peter Newbold, a Principal Ecologist at BSG Ecology, was responsible for undertaking the extended Phase 1 habitat survey and reviewing the ecological report.

2.6 Jamie Peacock, an Ecologist at BSG Ecology, was responsible for producing the ecological report.

2.7 Experience profiles for both parties can be found at https://www.bsg-ecology.com/people/

3 Methods

Desk study

3.1 Thames Valley Environmental records Centre (TVERC) was consulted to search for records of all protected or otherwise notable species within 2 km of the centre of the Site and any non-statutory sites within 2 km. Data was received on 24 July 2020. A search of available online interactive mapping database (MAGIC mapping) was used to determine the presence of statutory designated sites of nature conservation interest and European Protected Species Mitigation licences issued within 2 km of the centre of the Site, as well as identifying ponds or waterbodies within 500 m of the Site boundary to determine whether great crested newts (GCN) *Triturus cristatus* might be present.

Field survey

3.2 A Phase 1 habitat survey of the Site and adjacent habitat (where access permitted) was conducted by Peter Newbold on the 24 August 2020.

3.3 The survey was carried out in the following weather conditions; 16 degrees Celsius, no wind or rain and 8/8 (Oktas) cloud cover.

3.4 Habitats within the Site were identified, described and mapped with reference to industry standard Phase 1 habitat survey methodology, as detailed in the Phase 1 Habitat Survey Handbook (JNCC, 2010). The survey was 'extended' to include an assessment of the potential of the Site to support protected species or other species of conservation importance.

3.5 Buildings and trees on Site were assessed for their potential to support roosting bats (as below) whilst any ponds which could support GCN, in or immediately adjacent to the Site were also noted.

3.6 During the phase 1 survey an otter and water vole survey were also undertaken. All signs of use by otter such as spraints, holts, laying up areas and paw prints were also searched for. The water vole survey was carried out by accessing the river bank where ever possible and detecting typical signs of water vole presence. The water margins and banks were searched for signs of water vole such as droppings, latrine sites, footprints, runs, and feeding stations. The coordinates of all signs found were recorded using a Garmin Oregon 550.

Bat surveys

External building assessment

3.7 An external survey based on industry guidelines (Collins, 2016) was undertaken of buildings on Site; all buildings and structures within the Site boundary and two offsite buildings to the north of the Site boundary.

3.8 The inspection was undertaken using close focusing binoculars, and a high powered torch to search for potential roost features (PRFs), potential access points and signs of bats (droppings, urine staining and bats themselves). The building was assigned a category for its suitability to support roosting bats.

3.9 The suitability of buildings for bats was identified as being high, moderate, low or negligible using the criteria set out in Table 1.

Table 1: Roosting potential of buildings (adapted from Collins, 2016)

Suitability	**Description of roosting habitat**

Negligible	No habitat features likely to be used by roosting bats
Low	A building with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A building with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A building with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Limitations to methods

3.10 Not all trees within the dense / continuous scrub habitat to the west of the Site were assessed for their potential to support roosting bats due to limited visibility and access (access through the scrub along a vertical bank above a fast flowing river was not deemed safe). This is not seen as a significant limitation as the majority of trees are proposed to be retained, further assessment of any trees to be removed (e.g. for health and safety reasons) is recommended within the recommendations section.

3.11 No internal inspection of buildings was undertaken as this method was not deemed to follow the guidance produce for COVID-19 at that time, this is not seen as a significant issue as all the buildings within the Site that are to be directly impacted contained negligible potential to support roosting bats.

4 Results and Interpretation

Statutory designated sites

4.1 There are no statutory designated sites within 2 km of the Site. The nearest designated site is Neithrop Fields Cutting Site of Special Scientific Interest (SSSI) which is 2.4 km north-west from the Site.

Non-statutory designated sites

4.2 Two non-statutory designated sites were noted within 2 km of the Site. These consist of The Saltway, Banbury (east) Local Wildlife Site (LWS) and Grimsbury Reservoir which is a Proposed Local Wildlife Site (PLWS). Details of both are presented in Table 2 below.

Table 2: Non- statutory sites within 2 km of the centre of the Site

Non-statutory designated site	Distance and direction from Site	Description
Grimsbury Reservoir PLWS	1.3 km north	Grimsbury Reservoir is the largest area of standing water in North Oxfordshire.
The Saltway, Banbury (east) LWS	1.7 km south west	No information available

Habitats

4.3 Each habitat noted on Site is discussed in turn below and shown in Figure 1.

Improved grassland

4.4 An area of improved grassland was noted towards the north of the Site. Species noted within the sward included perennial ryegrass *Lolium perenne*, smooth meadow grass *Poa pratensis*, cock's foot *Dactylis glomerata*, creeping cinquefoil *Potentilla reptans,* common nettle *Urtica dioica*, cow parsley *Anthriscus sylvestris*, and creeping thistle *Cirsium arvense*. See Photograph 1.

4.5 This habitat is not a Habitat of Principal Importance (HPI), as defined by Maddock (2011).

Amenity grassland

4.6 Amenity grassland was noted in the middle of the Site. Species noted within the sward consisted of perennial ryegrass, common daisy *Bellis perennis*, and dandelion *Taraxacum officinale* agg. These areas were intensively maintained through regular cutting. See Photograph 2.

4.7 This habitat is not HPI, as defined by Maddock (2011).

Dense / continuous scrub

4.8 An area of dense / continuous scrub with mature trees was noted along the whole western boundary of the Site. See Photograph 3. Species noted within this area included; species of willow *Salix sp.*, Alder *Alnus glutinosa,* bramble *Rubus fruticosus*, elder *Sambucus nigra*, and cherry *Prunus avium.*

4.9 This habitat is not HPI, as defined by Maddock (2011).

Scattered scrub over hardstanding

4.10 A large area to the north of the Site which was made up hardstanding, but due to a lack of management grassland had encroached around the edges and Buddleia *Buddleja davidii* was present across the entire area. See Photograph 4.

4.11 This habitat is not HPI, as defined by Maddock (2011).

Running water

4.12 The River Cherwell is located adjacent to the western boundary of the Site. See Photograph 5.

4.13 This is a main river in poor condition with heavily scrubbed banks. No further surveys have been undertaken to confirm if this river is a HPI as it is being retained and mitigation as well as enhancements will be in place on the assumption that it is a HPI.

Buildings

4.14 There are eight buildings on Site and two offsite to the north. These consist of portacabins and brick structures with flat roofs and a single silo, see Photographs 6-12.

4.15 This habitat is not HPI, as defined by Maddock (2011).

Hardstanding

4.16 A large proportion of the Site is made up of areas of hardstanding including areas of tarmac. See Photographs 3, 4, 6, 7, 8, 9, 11 and 12.

4.17 This habitat is not HPI, as defined by Maddock (2011).

Protected or notable species

Bats

4.18 Bats and their roosts receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and under the Wildlife and Countryside Act 1981 (as amended) (WCA 1981). Soprano pipistrelle, brown long-eared bat, greater horseshoe bat *Rhinolophus ferrumequinum*, barbastelle bat *Barbastella barbastellus*, Bechstein`s bat *Myotis bechsteinii*, noctule, and lesser horseshoe bat *Rhinolophus hipposideros* are all listed as SPI.

4.19 The data search returned records for four species of bat. These consisted of common pipistrelle *Pipistrellus pipistrellus*, brown long eared *Plecotus auritus*, noctule *Nyctalus noctula* and whiskered bat *Myotis mystacinus*.

4.20 The most recent records were common pipistrelle and noctule records from 2017. Records from MAGIC noted that a licence to destroy a resting place for common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus* and brown long eared was granted in 2009, 200 m south from the Site.

Building assessments

4.21 External assessments undertaken during the Phase 1 of eight buildings on Site showed that the buildings contained negligible suitability to support roosting bats, being well maintained portacabins, flat roofed brick (single skin) structures and a large oil silo. One of the buildings offsite (TN2), which is approximately 35 m north from the Site, was noted as having low potential to support roosting bats. This building is outside of the Site boundary and will not be directly impacted by the development.

Tree assessments

4.22 The only trees on Site noted as likely having potential to support roosting bats were those amongst the dense scrub to the west of the Site. Although these trees were not fully assessed due to access constraints, features were noted suitable to contain roosting bats within some of the mature willow trees. No trees were observed to be of anything other than Low Suitability for roosting bats, but until the lower level scrub is removed this cannot be confirmed.

Birds

4.23 The data received from TVERC contained 123 bird species records. These consisted of Schedule 1 species, Species of Principal Importance[1] (SPI) and amber and red listed species. The majority of the species records can be attributed to the Grimsbury Reservoir, however, certain species are likely to utilise the Site including; kingfisher *Alcedo atthis* (River Cherwell only), dunnock *Prunella modularis*, house sparrow *Passer domesticus*, stock dove *Columba oenas*, swift *Apus apus*, tree sparrow *Passer montanus*, willow warbler *Phylloscopus trochilus* and yellow wagtail *Motacilla flava*.

4.24 There is suitable habitat on Site which is likely to support common and widespread nesting bird species. This is mainly limited to the dense / continuous scrub and trees along the River Cherwell. However the buildings on Site (see Photograph 14) also have suitability for nesting house sparrows and pigeon species. Kingfisher, although likely to use the river for foraging, are unlikely to breed within the Site due to a lack of suitable nesting habitat present (banks are considered to be unsuitable for this species as the banks are mainly sheet piling and where exposed material is present this is often associated with dense bramble).

Reptiles

4.25 All reptiles are protected from intentional killing and injury under the WCA 1981 (as amended). Additionally, grass snake, slow worm, adder *Vipera berus* and common lizard are all SPI.

4.26 The data search contained two species of reptile, grass snake *Natrix helvetica* (most recent records from 2017) and common lizard *Zootoca vivipara* (most recent record from 2014 within 2 km of the Site.

4.27 There is very low suitability habitat in the form of dense / continuous scrub and river corridor, and rough grassland which could support both reptile species noted above. However the Site is isolated from other areas of suitable habitat and given that the entire Site was until recently car park, buildings, dense scrub and short mown amenity grassland (with the more suitable habitat only really becoming established in the last few years) it is not thought that reptiles are likely to have populated the Site. Reptile species are therefore considered likely absent from the Site.

Water vole and Otter

4.28 Otter receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and under the WCA 1981 (as amended). Water vole are protected under the WCA 1981 (as amended). They are both also listed as an SPI.

4.29 Records for both water vole *Arvicola amphibius* and otter *Lutra lutra* were noted within the desk study. The most recent records were otter records from 2017, whilst the most recent water vole records were from 1987. The only areas on Site suitable to support either species are the banks of the River to the west of the Site.

4.30 No evidence of otter including their holts was noted during the extended Phase 1 habitat survey, however it is considered likely that otter use the section of the River Cherwell adjacent to the Site to forage and commute.

[1] Species of Principal Importance are those listed in response to Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 for the purposes of conserving biodiversity in England.

4.31 No evidence confirming the presence of water vole was found during the Phase 1 habitat survey and no optimal habitat to support this species was present along the stretch of river adjacent to the Site. Given the lack of recent records for this species and lack of optimum habitat adjacent to the Site it is considered unlikely that this species is present. However the River is being retained and mitigation as well as enhancements will be in place on the assumption that water vole are present within this watercourse.

Invertebrates

4.32 The data search noted 13 invertebrate species within 2 km of the Site. Most notable were records of stag beetle *Lucanus cervus* from 2016 and five other SPI including small heath *Coenonympha pamphilus* (1995), white letter hairstreak *Satyrium w-album* from 1993 (both butterfly species, two white clawed crayfish *Austropotamobius pallipes* records from 1978, fine lined pea mussel *Pisidium tenuilineatum* from 2014 and a blood vein *Timandra comae* (moth species) record from 1995.

4.33 The only area of the Site which is likely to support any notable invertebrate species is the area of dense / continuous scrub to the west of the Site and the River running adjacent to the western Site boundary. This habitat is however unlikely to support an important assemblage of notable species (or stag beetle) as the scrub is species poor and the River heavily urbanised.

4.34 This species group is not considered to pose a constraint to the proposed development.

Badger

4.35 Badgers are common and widespread across England, and the animals and their setts are protected under the Protection of Badgers Act 1992.

4.36 Badger *Meles meles* were noted within 2 km of the Site with the most recent record from 2017.

4.37 No setts were recorded during the Phase 1 habitat survey nor were any signs of badger including dung pits or latrines. The Site provides sub-optimal foraging and commuting habitat for badgers. Badger are considered likely absent from the Site.

Other mammals

4.38 Records of hedgehog *Erinaceus europaeus* (most recent record from 2019), polecat *Mustela putorius* (most recent record from 2014) were returned from the data search (both these species are SPI. There is suitable foraging habitat (of low suitability) for both hedgehog and polecat within areas of dense / continuous scrub to the west of the Site.

Other protected and notable species

4.39 Other protected species including dormouse *Muscardinus avellanarius* and great crested newt, are considered unlikely to be on Site due to the lack of records within the data search, the distance of records and lack of suitable habitat on Site and connecting habitat.

4.40 The nearest GCN record on MAGIC was approximately 2.2 km south west from the Site. No ponds were noted within 250 m of the Site, with the nearest pond being 333 m east from the Site with continuous hardstanding offering no connectivity between this pond and the Site.

4.41 No dormouse records were noted within 2 km of the Site and dormouse have a very scattered distribution within north Oxfordshire. The Site also offers very little suitable habitat. The area of dense / continuous scrub offers the most opportunity; however, this is area is relatively small in size, species poor and not connected to offsite habitats.

4.42 The data search noted twenty two notable botanical species within 2 km (including invasive species). The Site offers negligible suitability to support rare botanical species, and none were recorded during the extended Phase 1 habitat survey of the Site.

4.43 The above species (and species groups) are therefore considered likely-absent from the Site.

Invasive non-native species

4.44 There were eleven invasive non-native species records within 2 km of the Site. These consisted of botanical, bird and invertebrate species.

4.45 Only Buddleja was noted on Site (as well as within the desk study), which although is a non-native species it is not listed under Schedule 9 of the Wildlife and Countryside Act, 1981. No invasive non-native species (those listed on Schedule 9 of the Wildlife and Countryside Act) were recorded during the extended Phase 1 habitat survey.

5 Potential Impacts and Recommendations

Designated sites

Potential impacts

5.1 There are no statutory designated sites within 2 km of the centre of the Site. The desk study noted two non-statutory designated sites; the closest of these is Grimsbury Reservoir (PLWS) which is 1.3 km north from the Site. No significant impacts are likely given the area is already used for recreational purposes (sailing club and fishing) and there are only low numbers of residential units being proposed.

Recommendations

5.2 No recommendations due to significant impacts being unlikely.

Habitats

Potential impacts

5.3 There is likely to be loss of low ecological value habitats on Site. These include areas of amenity grassland and improved grassland, scattered (non-native) scrub, as well as buildings and hardstanding.

5.4 There are no direct impacts likely to occur on the River Cherwell from proposed works. In the absence of mitigation, indirect impacts including pollution from spills (e.g. chemicals) and sediment deposition could occur.

Recommendations

5.5 The River Cherwell should be enhanced through management and removal of strategic areas of dense scrub which will allow more light into the water and its margins and therefore benefit the aquatic an riparian biodiversity and the overall condition of the localised habitat.

5.6 Protection for the River Cherwell should be written into a Construction Environment Management Plan. No works involving operating plant machinery or liquids / chemicals such as cement, should be undertaken within 10 m of the River. A physical barrier (Heras fencing) should be installed prior to works starting to avoid any works being undertaken close to the river. There should be no dumping of material / waste and chemicals / liquids should be stored upright in sealed containers away from the river. Appropriate spill kits approved for materials stored should be kept on Site with staff trained on how to use them correctly.

Net gain

5.7 The habitat data from the Phase 1 habitat surveys, were entered into the DEFRA Biodiversity Metric 2.0 calculator. To do this, the Phase 1 habitat categories were converted into the DEFRA categories (following the conversion table given in Natural England and Defra (2019a)), and the condition of the habitats was assessed using the criteria in the condition assessment tables in Natural England and Defra (2019b). Due to the nature of the habitats (amenity and improved grassland, dense scrub, buildings and hardstanding) the Site is of currently low ecological value, equalling *1.44 biodiversity habitat units* as assessed through the metric.

5.8 As this project is at the Outline stage, no details are confirmed regarding the exact landscape plan however as required under planning policy a net gain in biodiversity should be sought through the project.

5.9 The main enhancements to the Site should be through the strategic removal of some of the dense (species poor) scrub along the River Cherwell, which will enable more light and therefore more natural marginal vegetation to become established along the edge of the river with no hard engineering proposed. Even taking a worst case scenario - i.e. it is taken as enhancing the river from a 'poor condition' 'Class 5 (heavily modified) river' to a 'fairly poor condition' 'Class 5 (heavily modified) river' this would still represent a likely gain of 0.24 River Biodiversity units or a 46.92 % net gain. Any scrub removal should be only done for the ecological enhancement of the river bank and habitat system, and no new access points should be allowed into these habitat areas (the semi-natural habitat within 8 m of the river's bank).

5.10 The development of the residential area will likely lead to the loss of all grassland areas within the Site (0.48 biodiversity habitat units), therefore, to provide a net gain in habitat units the provision of green roofs should be included within the designs. These could either be included for the car park (creating car ports) or on the new buildings.

5.11 It should be noted that the Defra metric does not allow direct comparisons between habitat units and river units. Therefore at the detailed design stage if there is a slight loss of habitat units, if there can be demonstratable significant enhancements to the river it should still be considered that the scheme is providing an overall net gain in biodiversity.

5.12 Additional gains in biodiversity are discussed below for protected and notable species.

Protected and notable species

Bats

Potential impacts

5.13 None of the buildings within the Site boundary were noted as having suitability to support roosting bats. These can be demolished with no likely impacts on bats. Should the Site boundary be altered to include the building offsite with low potential to support roosting bats, impacts could occur should no further survey work be undertaken.

5.14 Trees within the dense / continuous scrub to the west of the Site are likely to contain roosting features for bats. These should be retained if safe to do so. Should these trees be felled or maintained without being assessed, bats could be killed, injured or disturbed during works.

5.15 Due to suitable foraging habitat along the river Cherwell and dense / continuous scrub on Site to the west of the Site there are potential impacts on foraging and roosting bats with increased lighting.

Recommendations

5.16 Any trees requiring management / felling will be assessed prior to any direct works by an ecologist. Should trees be found to have suitability to support roosting bats then they will need further survey work including tree climbing surveys by a licenced bat surveyor and possible infra-red camera trap deployments to rule out use by bats. Any trees with suitable features for roosting bats will be retained and protected where possible, however the enhancements to the River Cherwell may mean the removal of some of these trees.

5.17 A lighting strategy should be produced and implemented so as to reduce the impacts of lighting on the western boundary of the Site allowing bats to continue to use this area. The lighting strategy should implement ILP and BCT guidance for artificial lighting and bats (ILP, 2018). This includes avoiding lighting along the River Cherwell corridor. Where it is not possible to avoid lighting in this corridor (i.e. for safety reasons), low level bollard lighting, will be used in order to avoid light spillage into habitats to minimise the risk of disturbance to bats. This complies with paragraph 180 of the National Planning Policy Framework (NPPF) which states that 'decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

5.18 Bat boxes should be installed within suitable retained trees to the west of the Site and within the new buildings on Site.

Nesting birds

Potential impacts

5.19 Bird nests whilst in use and eggs of all species of wild bird are protected under the Wildlife and Countryside Act 1981 (as amended) from damage and destruction.

5.20 Vegetation suitable for breeding birds to be impacted by the proposed works includes trees and scrub on Site. Buildings on Site also offer opportunities for nesting. In the absence of mitigation, vegetation clearance and building demolition during the nesting bird season has the potential to result in damage or destruction of active nests or the killing of young birds.

Recommendations

5.21 In order to avoid impacts on nesting birds, it is recommended that vegetation clearance and demolition / removal of buildings are carried out outside the bird breeding season (March to August inclusive). If clearance during the breeding season cannot be avoided, it may be possible for a suitably experienced ecologist to search vegetation and buildings for nesting birds prior to clearance. If nesting birds are found, the nests (and suitable buffer area of vegetation) would need to be retained until any young have fledged.

5.22 It is recommended that the Site is enhanced for birds through provision of bird boxes on retained mature trees within the Site and within the fabric of the buildings itself, if practical.

Water vole and otter

Potential impacts

5.23 Although no direct impacts are anticipated on the River Cherwell or its associated banks, both species will be considered further should works along the River Cherwell be required which may otherwise breach legislation.

Recommendations

5.24 Pre-work checks for otter holts and water vole burrows should be undertaken so as resting places are not impacted.

5.25 The section of River Cherwell should be enhanced to provide more suitable opportunities for both species with marginal vegetation to be encouraged (by removal of dense scrub) along the river bank.

Hedgehog and polecat

Potential impacts

5.26 Hedgehogs and polecat could be found on Site, within the dense / continuous scrub. There is therefore potential for injuring or killing of hedgehog and polecat during works or trapping within open excavations.

Recommendations

5.27 Excavations created during Site works should be covered and ramps installed overnight to allow any mammals to escape should they enter the excavation.

5.28 To reduce the risk of killing / injuring hedgehogs, areas of hedge and scrub should be searched prior to removal to check for the presence of hedgehog.

General recommendations

5.29 Green roofs should be incorporated within the design which would be of benefit to invertebrates, birds and bats.

5.30 All botanical species within the landscape proposals (including trees and shrub) should either be native species or species of high biodiversity value.

5.31 Additional enhancements where possible could include the creation of further wood piles, insect hotels and wildflower / species rich grassland planting.

5.32 Landscape planting to benefit biodiversity with pollinator friendly species within the planting / seed mix list.

6 References

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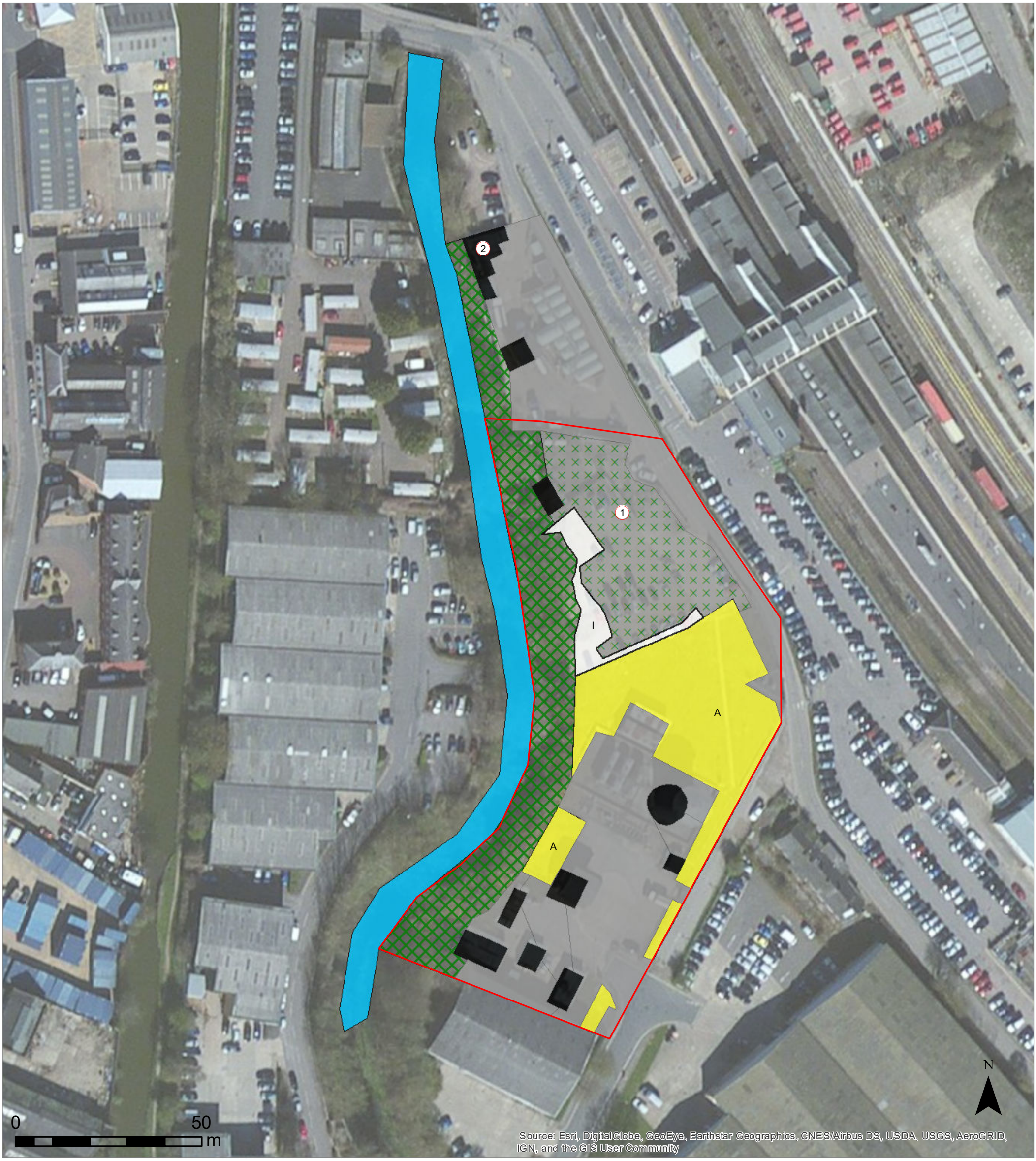
7 Figures

Figure 1: Extended Phase 1 Habitat Survey Plan

Figure 255-P03-B: Illustrative Masterplan



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JOB REF: P20-643

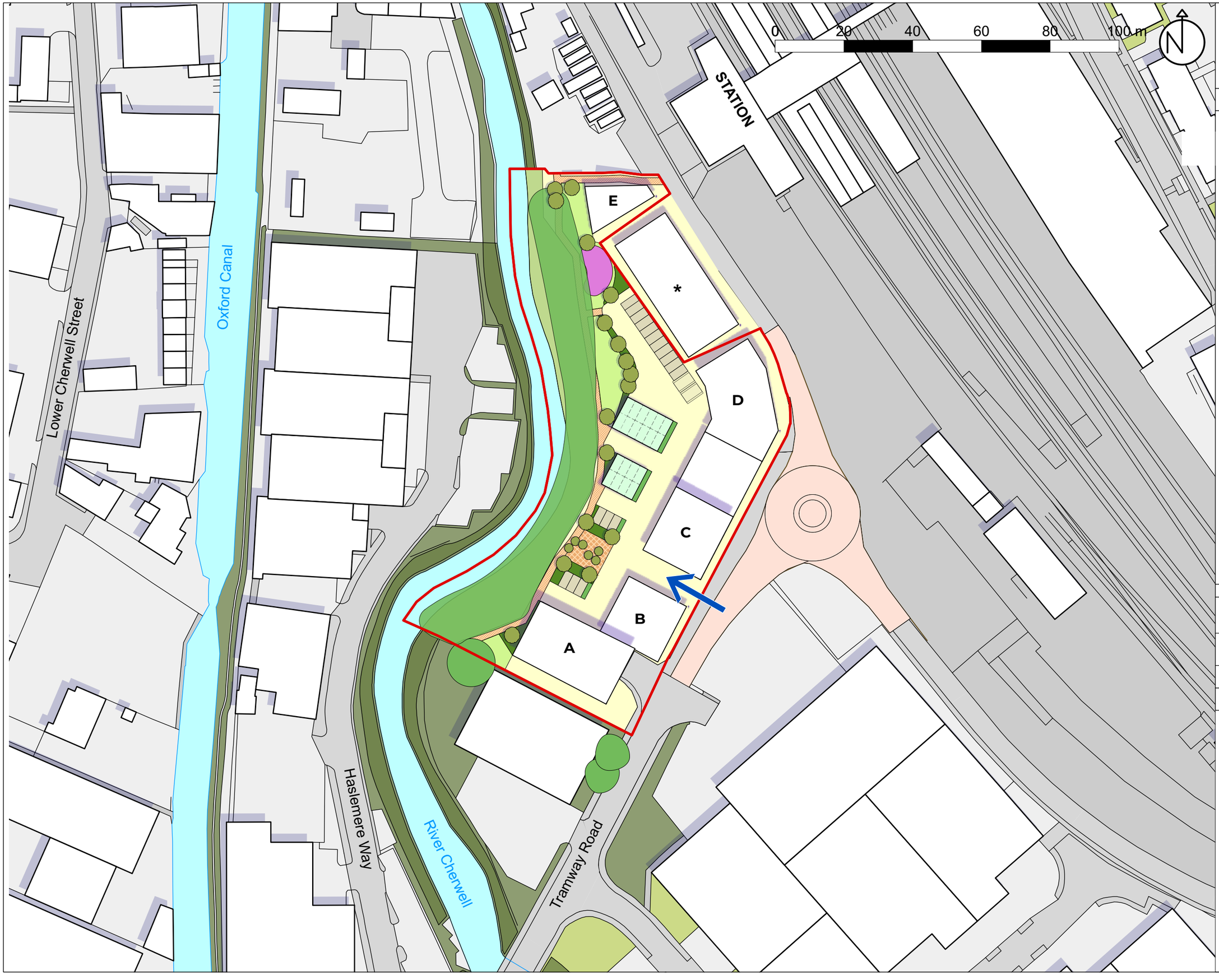
PROJECT TITLE
BANBURY OIL DEPOT

DRAWING TITLE
Figure 1: Phase 1 habitat map

DATE: 03/11/2020 CHECKED: PN SCALE: 1:1,000
DRAWN: KW APPROVED: PN VERSION: 1.1

LEGEND

- Site boundary
- 1 Target note
- Running water
- Dense scrub
- I Improved grassland
- A Amenity grassland
- Building
- Hardstanding
- Scattered scrub over hardstanding



PLANNING

- Site boundary *(0.87ha)*
- Existing vegetation to be retained and enhanced
- Riverside Walkway
- Courtyard plaza
- Public amenity space (flowering lawn)
- Play space (L.A.P)
- River Bank
- Rain gardens with shrub planting
- Green verges
- Proposed trees
- Public/private realm
- Proposed OCC new roundabout configuration
- Primary site access point
- Car parking
- Green roofed parking bays
- Residential development area

* *Indicative proposals outside of site boundary*

BLOCKS					
A	B	C	D	E	
3	**3**	**2**	**2**	**0**	Studio units
10	**11**	**14**	**17**	**3**	One-bed apartment
15	**3**	**13**	**3**	**3**	Two-bed apartment
2	**0**	**0**	**6**	**0**	Three-bed apartment

Blocks A-D: *Residential development with undercroft parking, bicycle parking and services on ground floor.*

Block E: *Retail/ commercial/ community development and services on ground floor, with residential over.*
166 m2 non-residential unit on ground floor.

TOTAL UNITS IN BLOCKS A-E:
- 110 UNITS
- 65 ASSOCIATED PARKING SPACES

Rev.	Date	Description
A	16/03/21	Reduction in quantity of dwellings and increased quantity of open space

Banbury Oil Depot
BANBURY

Illustrative Masterplan

Job ref:	Drawing number:	Revision:
255	P03	B

Scale:	Date:
1:1,000 @ A3	October 2021

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8 Photographs

Photograph 1: Improved grassland adjacent to dense / continuous scrub within the Site	**Photograph 2: Amenity grassland within the centre of the Site**
	
Photograph 3: Dense / continuous scrub along western boundary of the Site	**Photograph 4: Scattered scrub over hardstanding within the centre of the Site**
	
Photograph 5: River Cherwell west from the Site	**Photograph 6: Buildings within the Site**
	
Photograph 7: Buildings within the Site	**Photograph 8: Buildings within the Site**

Photograph 9: Buildings within the Site

Photograph 10: Buildings within the Site

Photograph 11: Buildings within the Site

Photograph 12: Buildings within the Site

Photograph 13: Building offsite with low potential to support roosting bats

Photograph 14: Bird nest within building on Site

Appendix 1: Summaries of Relevant Policy, Legislation and Other Instruments

This section briefly summarises the legislation, policy and related issues that are relevant to the main text of the report. The following text does not constitute legal or planning advice.

National Planning Policy Framework (England)

8.1 The Government revised the National Planning Policy Framework (NPPF) on 19 February 2019. Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.

8.2 The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged.' At paragraph 8c) the planning system's environmental objective refers to 'protecting and enhancing our natural, built and historic environment' and to 'helping to improve biodiversity'

8.3 In conserving and enhancing the natural environment, the NPPF (Paragraph 170) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:

- Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
- Recognising the wider benefits from natural capital and ecosystem services including trees and woodland.
- Minimising impacts on and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.

8.4 In respect of protected sites, at paragraph 171, the NPPF requires local planning authorities to distinguish, at the plan level, '…between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...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.'

8.5 Paragraph 174 refers to how plans should aim to protect and enhance biodiversity. Plans should: '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 [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and re-creation 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.'

8.6 Paragraph 175 advises that, 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'

8.7 In paragraph 176, the following should be given the same protection as habitats sites[2]:

i. potential Special Protection Areas and possible Special Areas of Conservation

ii. listed or proposed Ramsar sites; and

iii. 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.'

8.8 In paragraph 177 the NPPF refers back to sustainable development in relation to appropriate assessment and states: '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'.

8.9 In paragraph 178, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of 'potential impacts on the natural environment' that arise from land remediation.

8.10 In paragraph 180 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and , in doing so, they 'should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Cherwell District Council Local Plan: Policy ESD10: Protection and enhancement of biodiversity and the natural environment

8.11 Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

- In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
- The protection of trees will be encouraged, with an aim to increase the number of trees in the District
- The reuse of soils will be sought

[2] Habitats sites are defined in the glossary as 'Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 (as amended) for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.'

- If significant harm 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 development will not be permitted.

- Development which would result in damage to or loss of a site of international value will be subject to the Habitats Regulations Assessment process and will not be permitted unless it can be demonstrated that there will be no likely significant effects on the international site or that effects can be mitigated

- Development which would result in damage to or loss of a site of biodiversity or geological value of national importance will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site and the wider national network of SSSIs, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity

- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity

- Development proposals will be expected to incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity

- Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value

- Air quality assessments will also be required for development proposals that would be likely to have a significantly adverse impact on biodiversity by generating an increase in air pollution

- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the principal aims will be viewed favourably

- A monitoring and management plan will be required for biodiversity features on site to ensure their long term suitable management.

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation (England only)

8.12 Paragraph 98 of Government Circular 06/2005 advises 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. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned..."

8.13 Paragraph 99 of Government Circular 06/2005[3] advises that "it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed

[3] *ODPM Circular 06/2005. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted".

Standing Advice (GOV.UK - England only)

8.14 The GOV.UK website provides information regarding protected species and sites in relation to development proposals: 'Local planning authorities should take advice from Natural England or the Environment Agency about planning applications for developments that may affect protected species.' GOV.UK advises that 'some species have standing advice which you can use to help with planning decisions. For others you should contact Natural England or the Environment Agency for an individual response.'

8.15 The standing advice (originally from Natural England and now held and updated on GOV.UK[4]) provides advice to planners on deciding if there is a 'reasonable likelihood' of protected species being present. It also provides advice on survey and mitigation requirements.

8.16 When determining an application for development that is covered by standing advice, in accordance with guidance in Government Circular 06/2005, Local planning authorities are required to take the standing advice into account. In paragraph 82 of the aforementioned Circular, it is stated that: 'The standing advice will be a material consideration in the determination of the planning application in the same way as any advice received from a statutory consultee…it is up to the planning authority to decide the weight to be attached to the standing advice, in the same way as it would decide the weight to be attached to a response from a statutory consultee.'

Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England)

8.17 The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act require the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England as required by the Act. In accordance with the Act the Secretary of State keeps this list under review and will publish a revised list if necessary, in consultation with Natural England.

8.18 The S41 list is used to guide decision-makers such as public bodies, including local authorities and utilities companies, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions, including development control and planning. This is commonly referred to as the 'Biodiversity Duty.'

8.19 Guidance for public authorities on implementing the Biodiversity Duty[5] has been published by Defra. One of the key messages in this document is that 'conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.' In England the administration of the planning system and licensing schemes are highlighted as having a 'profound influence on biodiversity conservation.' Local authorities are required to take measures to "promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species. The guidance states that 'the duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making.'

8.20 In 2007, the UK Biodiversity Action Plan (BAP) Partnership published an updated list of priority UK species and habitats covering terrestrial, freshwater and marine biodiversity to focus conservation action for rarer species and habitats in the UK. The UK Post-2010 Biodiversity Framework[6], which

[4] https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals#standing-advice-for-protected-species
[5] Defra, 2007. *Guidance for Public Authorities on Implementing The Biodiversity Duty*. (http://www.defra.gov.uk/publications/files/pb12585-pa-guid-english-070516.pdf)
[6] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group). 2012. *UK Post-2010 Biodiversity Framework*. July 2012. (http://jncc.defra.gov.uk/page-6189)

covers the period from 2011 to 2020, now succeeds the UK BAP. The UK priority list contained 1150 species and 65 habitats requiring special protection and has been used as a reference to draw up the lists of species and habitats of principal importance in England.

8.21 In England, there are 56 habitats of principal importance and 943 species of principal importance on the S41 list. These are all the habitats and species found in England that were identified as requiring action in the UK BAP and which continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

European protected species (Animals)

8.22 The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates various amendments that have been made to the original (1994) Regulations which transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.

8.23 "European protected species" (EPS) of animal are those which are shown on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:

a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species

b. Possess or control any live or dead specimens or any part of, or anything derived from a these species

c. deliberately disturb wild animals of any such species

d. deliberately take or destroy the eggs of such an animal, or

e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place

8.24 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—

a. to impair their ability—

   i. to survive, to breed or reproduce, or to rear or nurture their young, or

   ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

b. to affect significantly the local distribution or abundance of the species to which they belong.

8.25 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works and by Natural Resources Wales in Wales. In accordance with the requirements of the Regulations (2017, as amended), a licence can only be issued where the following requirements are satisfied:

a. The proposal is necessary 'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'

b. 'There is no satisfactory alternative'

c. The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Definition of breeding sites and resting places

8.26 Guidance for all European Protected Species of animal, including bats and great crested newt, regarding the definition of breeding and of breeding and resting places is provided by The

European Council (EC) which has prepared specific guidance in respect of the interpretation of various Articles of the EC Habitats Directive.[7] Section II.3.4.b) provides definitions and examples of both breeding and resting places at paragraphs 57 and 59 respectively. This guidance states that 'The provision in Article 12(1)(d) [of the EC Habitats Directive] should therefore be understood as aiming to safeguard the ecological functionality of breeding sites and resting places.' Further the guidance states: 'It thus follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are not being used, but where there is a reasonably high probability that the species concerned will return to these sites and places. If for example a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can re-use it in winter. On the other hand, if a certain cave is used only occasionally for breeding or resting purposes, it is very likely that the site does not qualify as a breeding site or resting place.'

Competent authorities

8.27 Under Regulation 7 of the Conservation of Habitats and Species Regulations 2017 (as amended) a "competent authority" includes "any Minister of the Crown…, government department, statutory undertaker, public body of any description or person holding a public office.

8.28 In accordance with Regulation 9, "a competent authority must exercise their functions which are relevant to nature conservation, including marine conservation, so as to secure compliance with the requirements of the [Habitats and Birds] Directives. This means for instance that when considering development proposals a competent authority should consider whether EPS or European Protected Sites are to be affected by those works and, if so, must show that they have given consideration as to whether derogation requirements can be met.

Birds

8.29 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

Wild mammals in general

The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.

Water vole

8.30 Water vole is protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to kill, injure or take any water vole, damage, destroy or obstruct access to any place of shelter or protection that the animals are using, or disturb voles while they are using such a place. Water vole is listed as a Species of Principal Importance under the provisions of the NERC Act 2006 in England and under the provisions of the Environment (Wales) Act 2016.

Invasive non-native species

8.31 An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.

[7] Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (February 2007), EC.

8.32 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to release, or to allow to escape into the wild, any animal which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state or is listed under Schedule 9 of the Act.

8.33 It is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).