CSA environmental

Land at Worcester Lane,
Stourbridge

Preliminary Ecological Appraisal

Prepared by
CSA Environmental

on behalf of
The Feoffees of Old Swinford Hospital

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This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

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CONTENTS

Appendices

EXECUTIVE SUMMARY

CSA Environmental was instructed by The Feoffees of Old Swinford Hospital to undertake a Preliminary Ecological Appraisal (PEA) of land at Worcester Lane, Stourbridge (hereafter referred to as 'the Site'). It is understood that the intention is to promote the Site in the emerging Dudley Local Plan for residential development. The PEA was undertaken to identify any ecological constraints to development, inform scheme design, highlight opportunities for ecological enhancement/Biodiversity Net Gain and determine the need for any additional investigation/survey. As part of this PEA, a desk study and field survey of the Site were undertaken in May and June 2022, including a UK Habitat Classification survey.

The Site comprises one agricultural field bounded by a combination of intact, mature hedgerows and a grass verge with varying management. A train line runs along the western boundary of the Site and a public footpath runs diagonally through the Site.

Habitats currently present within the Site are generally common and widespread, with the greatest ecological interest associated with the native species hedgerows present along the north and east boundaries, and the grass verge adjacent to the railway line along the western boundary. One mature oak tree is also located along the northern boundary which contains features suitable for roosting bats and nesting birds, and should be retained, protected and buffered from development edge effects.

Impacts to statutory and non-statutory designated sites of nature conservation interest have been considered and potential impact pathways have been identified in relation to Aqueduct Railway Cutting SLINC which lies 10m south-west of the development, accessed from a public footpath running through the site. Recommendations are made for a semi-natural buffer zone along the railway line to supplement and protect this adjacent local wildlife site.

It is considered that retention of habitats with a higher ecological value as part of the scheme design, together with the creation of new ecological habitats, will help to contribute towards delivering a net gain in biodiversity on-site.

Protected species which may be present include foraging/dispersing bats and nesting birds. Nevertheless, any impacts at the Site are expected to be minor and so no overriding constraints to development of the Site have been identified. Recommendations have been provided for ecological enhancement measures/Biodiversity Net Gain that could be delivered as part of the proposed development.

1.0 INTRODUCTION

1.1 This report has been prepared by CSA Environmental on behalf of The Feoffees of Old Swinford Hospital. It sets out the findings of a Preliminary Ecological Appraisal (PEA) of land at Worcester Lane, Stourbridge (hereafter referred to as 'the Site'). It is proposed that the Site will be promoted through the emerging Dudley Local Plan for residential development.

1.2 The scope of this appraisal has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017), and to the *Biodiversity: Code of practice for planning and development* (BS 42020:2013) published by the British Standards Institution (2013).

1.3 The Site occupies an area of c. 3ha and is located around central grid reference SO905814, to the south of Stourbridge, West Midlands. It consists of one agricultural field bounded by a combination of intact, mature hedgerows and a grass verge with varying management (see Habitats Plan in Appendix A).

1.4 This PEA aims to:

- Characterise baseline ecological conditions of the Site and its wider context
- Identify any ecological constraints to development of the Site
- Inform scheme design
- Identify further ecological surveys and investigation necessary to inform a full Ecological Impact Assessment (EcIA) of the Site
- Highlight opportunities for ecological enhancement and Biodiversity Net Gain (BNG)

1.5 To achieve these aims, an ecological desk study and field survey undertaken of the Site, the findings of which are presented herein.

1.6 As set out in best practice guidelines (CIEEM, 2017) a PEA is typically only suitable for planning submission where there are no ecological constraints relating to the project. Where ecological constraints are identified, such as the presence of important ecological features, the effects of development on these features should be assessed within a separate EcIA report, which would supersede the PEA.

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

Legislation

2.1 Legislation relating to wildlife and biodiversity of particular relevance to this PEA includes:

- The Conservation of Habitats and Species Regulations 2017 (as amended)
- The Wildlife and Countryside Act 1981 (as amended)
- The Natural Environment and Rural Communities (NERC) Act 2006
- The Protection of Badgers Act 1992
- The Environment Act 2021

2.2 This above legislation has been addressed, as appropriate, in the production of this report. Further information on the above legislation is provided in Appendix B.

National Planning Policy

2.3 The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021) sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. Further details are provided in Appendix B.

2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their effects within the planning system.

Local Planning Policy

2.5 A number of local planning policies relate to ecology, biodiversity and/or nature conservation. These are summarised in Table 1 of Appendix B. These policies have been addressed, as appropriate, in the production of this report.

Standing Advice

2.6 Natural England and Defra's Standing Advice (Natural England & Defra, 2014) regarding habitats and protected species aims to support local authorities and forms a material consideration in determining applications in the same way as any individual response received from Natural England following consultation. Standing advice has therefore been given due consideration, alongside other detailed guidance documents, in the production of this report.

3.0 METHODS

Desk Study

3.1 An ecological desk study was undertaken in June 2022 comprising a review of online resources and biological records centre data as detailed below.

3.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was reviewed to identify nature conservation designations within the following search radii:

- Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites within 10km of the Site (including possible/proposed sites)
- Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Local Nature Reserves (LNR) within 3km of the Site
- Other relevant data e.g. Ancient Woodland Inventory within 1km of the Site

3.3 A review was undertaken of the location of any such designations, their distance from and connectivity with the Site, and the reasons for their designation. This information was used to determine whether they may be within the Site's zone of influence.

3.4 Worcestershire Biological Records Centre (WBRC) and Eco record were contacted for details of any non-statutory nature conservation designations and records of protected/notable habitats and species. This information was requested for an area encompassing the Site and adjacent land within c. 2km of its central grid reference. This search area was selected to include the likely zone of influence upon non-statutory designations and protected or notable habitats and species.

3.5 Further online resources were reviewed for information which may aid the identification of important ecological features. The Woodland Trust's online Ancient Tree Inventory was reviewed for known ancient or veteran trees within the Site and adjacent land. Interactive online mapping provided by the charity 'Buglife' was used to determine whether the Site falls within an Important Invertebrate Area.

3.6 In accordance with Natural England's Great Crested Newt Mitigation Guidelines (2001), a desktop search was undertaken to identify ponds within 500m of the Site which may have potential to support breeding great crested newts *Triturus cristatus*, using Ordnance Survey (OS) mapping, the MAGIC database and aerial photography.

3.7 Where possible under the terms of the data provider, relevant desk study data are presented in Appendix C.

Field Survey

3.8 A UK Habitat Classification ('UKHab') survey was carried out in fine and dry weather conditions on 26 May 2022 by Lucy Moorhouse, encompassing the Site and immediately adjacent habitats that could be viewed.

3.9 UKHab is a unified and comprehensive system for mapping and classifying habitats, designed to provide a simple and robust approach to surveying and monitoring, and replaces Phase 1 Habitat survey methods. The method allows for identification of important habitat types, including Habitats of Principal Importance under Section 41 (S41) of the NERC Act (2006) and Habitats Directive Annex I habitats. This method also allows for direct translation of habitats into the current Biodiversity Metric (Natural England, version 3.1).

3.10 The following parameters were adopted for the UKHab survey undertaken for this PEA:

- UKHab Professional edition (Butcher *et al*., 2020, commercial End User Licence Agreement (EULA))
- Minimum Mappable Unit (MMU):
    - $10m^2$/0.001ha (polygons)
    - 5m (linear)
- Primary Habitats recorded to a minimum of Level 2 (see below) with UKHab codes provided
- Mandatory secondary codes used
- Base-mapping comprising a combination of aerial imagery and topographic information

3.11 Primary Habitats are recorded to a minimum of Level 2. Where the survey is conducted at an appropriate time of year (e.g. May to July for grassland) habitats may be recorded to Level 3, 4 or 5, only if conditions and the experience of the surveyor allow.

3.12 Alongside the UKHab survey, additional field survey information was collected, comprising:

- Detailed floral species lists recorded for each identified habitat/parcel
- Evidence of, or potential for, European Protected Species (EPS) (including bats, great crested newt, dormouse and otter)

[redacted]

- Evidence of, or potential for, other notable species (including S41 Species of Principal Importance as well as notable, rare, protected or controlled plants and invertebrates)
- Any other survey information relevant to ecological matters

3.13 Results of the UKHab survey are presented on the Habitats Plan in Appendix A. Appendix D provides photographs of the habitats at the Site and Appendix E provides a list of floral species recorded in each habitat parcel. Nomenclature for higher plants within this report is consistent with the fourth edition of The New Flora of the British Isles (Stace, 2019).

Limitations

3.14 Around 100m^2 of the 2km Site radius for the data search lies within Staffordshire Ecological Record Centre, around 1.8km west of the Site. As records were attained from both EcoRecord and Worcestershire Biological Records Centre which between them cover the vast majority of the search area, these records are seen as irrelevant due to their distance from the Site and very small area.

Evaluation and Assessment

3.15 The evaluation and assessment of ecological features is beyond the scope of a PEA and has therefore not been undertaken here. Formal evaluation and assessment of any identified important ecological features should be undertaken as part of either a full EcIA, or receptor-specific survey and assessment in accordance with the published CIEEM method (CIEEM, 2018).

4.0 BASELINE ECOLOGICAL CONDITIONS

Nature Conservation Designations

Statutory

4.1 There are no statutory designations covering any part of the Site.

4.2 One international statutory designation was identified within 10km of the Site. These were the Fen Pools SAC (c. 6.9km north-east of the Site) which is designated due to its population of great crested newts *Tritus cristatus.*

4.3 No national statutory or local statutory designations were identified within 3km of the Site.

4.4 These statutory designations are described in Table 1 below. Due to the small size of the Site and distance to the SAC, there is likely to be no impacts in visitor numbers to the SAC. No hydrological connections are present between the Site and above designations. Statutory designations are not anticipated to pose a constraint to development.

Non-Statutory

4.5 14 non-statutory designations were identified within 2km of the Site, comprising of Sites of Importance for Nature Conservation (SINC) and Sites of Local Importance for Nature Conservation (SLINC). These include:

- Glasshouse Hill SINC (c. 1.8km north)
- Ham Dingle SINC (c. 1.3km north-east)
- Norton Covert SINC (c. 1.8km west)
- Ounty John Wood SINC (c. 0.5km west)
- Pedmore Common SINC (c.0.9km north west)
- Stourbridge Junction Railway Cutting (c. 1.2km north-east)
- Wychbury Hill SINC (c. 1.3km east of the Site)
- Aqueduct Railway Cutting SLINC (c. 10m south-west)
- Farmland South of Racecourse Lane SLINC (c. 0.5km west)
- Stourbridge Golf Course SLINC (c. 0.6km west)

4.6 The non-statutory designations that have relevance to the Site are described in Table 1 below.

4.7 Aqueduct Railway Cutting SLINC is located c. 10m west of the Site, over the railway bridge. The SLINC is small at 0.7ha and a public footpath runs to the west of the SLINC which connects to the road through the Site. Therefore, potential impacts to this designation could occur as a result of the proposed development.

4.8 Due to the distance of the Site from the remaining designations a significant increase in visitor numbers is unlikely. The Site is not hydrologically connected to the designations above.

Table 1. Statutory and Non-Statutory Designations within search radii

Site Name & Designation	Distance & Direction from Survey Area	Special Interests or Qualifying Features
International Designations within 10km		
Fens Pools SAC	c. 6.9km north-east	The site comprises of a series of small pools and a wide range of other habitats including swamp, fen and inundation communities. Great crested newts occur as part of an important amphibian assemblage.
Non-Statutory Designations within 2km		
Aqueduct Railway Cutting SLINC	c. 10m west	A narrow band of scattered scrub and grassland bordering an active railway cutting.
Farmland South of Racecourse Lane SLINC	c. 0.5km west	Farmland comprising of a network of old, species rich and diverse hedgerows and grassland, acidic in part, thought to support breeding skylark populations
Ounty John Wood SINC	c. 0.5km west	Strip of mature woodland with mature plantings of Beech (Fagus sylvatica) occupying formerly quarried slope.
Stourbridge Golf Course	c. 0.6km west	Area of formerly small fields adjacent to Pedmore Common now golf course. Much of site heavily managed with regularly mown grassland & areas of planted trees. Less intensively managed grassland is more diverse & somewhat acidic. Pond of amphibian value.
Pedmore Common SINC	c.0.9km north west	Formerly a historic common now a golf course with remnant areas of heathland and acid grassland. There is also some recent secondary woodland and many small planted blocks.
Ham Dingle SINC	c. 1.3km north-east	Ancient semi-natural broad-leaved 'dingle' woodland along valley sides of two watercourses supporting diverse flora with several species rare in conurbation. The stream and road cuttings encompass strata belonging to the Triassic, Permian and Upper Carboniferous periods.
Norton Covert SINC	c. 1.8km west	Former sand & gravel quarry colonised by woodland with some mature plantings of broad-leaved and coniferous trees.

Ancient Woodland

4.9 There is no ancient woodland, as shown on the ancient woodland inventory, covering any part of the Site or immediately adjacent land

and no trees on or adjacent to Site are listed on the Ancient Tree Inventory.

Habitats and Flora

4.10 Habitats recorded on-site are illustrated in Appendix A with detailed species lists provided in Appendix E. Relevant UKHab codes are provided within parentheses for each habitat type recorded [e.g. Other Neutral Grassland (g3c)].

Notable Flora Records

4.11 A total 240 records of 51 notable plant species were returned from within the search area. Those of potential relevance to the Site include corn spurrey *Spergula arvensis* and spreading bellflower *Campanula patula* located c. 10m west of the Site. Corn Spurrey is classed as vulnerable, while Spreading Bellflower is classified as endangered and is listed as a priority species under the UK Biodiversity Action Plan.

4.12 No protected, notable or invasive plants were recorded at the Site. Although the records for corn spurrey and spreading bellflower are close in proximity to the Site, the most recent records for these plants date back to 1998 and 2003, meaning they haven't been detected for 24 and 19 years respectively. The habitats within the redline boundary are classed as sub-optimal for spreading bellflower, which typically occurs in open woodland or on woodland edges. It is also known to occur on sunny banks, and so the railway bank directly adjacent to site would provide some sub-optimal habitat for the species. The grassland on-site along B3 provides minimal suitable habitat, and will be suitably buffered within development proposals to reduce development edge effects to the railway bank offsite.

4.13 Corn spurrey is known to occur in disturbed habitats and arable farmland, such as is present within the redline boundary. Nevertheless, records of these species are now historical within the area, and no signs of this species was recorded during the Site visit.

Cereal crops (c1c)

4.14 The Site is dominated by cereal crops, which covers the entirety of F1. A public footpath runs diagonally through the Site from the north-east to south-west, comprising of bare ground. Arable field margins are present along the north, east and west boundaries of varying widths, with 0.5m on the east, 1m on the north and 1m on the west.

Arable field margins (c1a)

4.15 Arable field margins are present within F1 on the north, east and west boundaries at varying widths. Species recorded within the margins include creeping thistle *Cirsium arvense*, dock *Rumex sp.*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, cleavers

Galium aparine, cow parsley *Anthriscus sylvestris*, hogweed *Heracleum sphondylium*, mugwort *Artemisia vulgaris,* cock's-foot *Dactylis glomerata* and false oat-grass *Arrhenatherum elatius*. A full species list is included within Appendix E.

Other neutral grassland (g3c)

4.16 Other neutral grassland is present along the boundary adjacent to the railway line (B3) forming a c. 3m wide stretch on-Site, with a larger area off-site behind a post and wire fence, running down the bank to the railway line. This grassland was c. 1m high on the day of survey and appears to be infrequently managed. Species include common chickweed *Stellaria media,* white clover *Trifolium repens,* great willowherb *Epilobium hirsutum*, field horsetail *Equisetum arvense,* burdock *Arctium sp.,* wall speedwell *Veronica arvensis*, Yorkshire-fog *Holcus lanatus,* wall barley *Hordeum murinum* and perennial rye-grass *Lolium perenne*.

Infrastructure

4.17 A pipeline and associated infrastructure are located in the north-west corner of the Site which heads over the railway line and into the ground surrounded by a post and wire fence.

Hedgerows (h2)

4.18 Two hedgerows are located on-site, one native hedgerow along the eastern boundary (B1) and one native line of trees managed as a hedgerow along the northern boundary (B2). Both hedgerows appear to be managed with a yearly cut suspected. Species within B1 include hawthorn Crataegus *monogyna*, blackthorn Prunus spinosa, oak Quercus sp., ash *Fraxinus excelsior*, dogwood *Cornus* sp., hazel *Corylus avellana* and elder *Sambucus nigra* with a thick covering of white bryony *Bryonia dioica*. B2 includes hawthorn, blackthorn, hazel, ash, oak, elder, willow Salix sp., goat willow *Salix caprea*, sycamore *Acer pseudoplatanus* and *Prunus* sp. with a light covering of white bryony.

Fauna

Bats

4.19 A total of 13 bat records were identified within the search area, dating from 1992 to 2021. These include the following species: common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, and brown long-eared bat *Plecotus auritus*. The closest records are of a known large historic roost of brown long-eared bats and a common pipistrelle roost (c. 0.6km north-west from the Site) dating from 2004.

4.20 Although arable habitat is of limited value to foraging bats, the mature hedgerow to the east and railway line to the west of the Site offer some foraging and commuting routes for bats, with connectivity to the wider landscape via the railway corridor and network of hedgerows.

Considering the proximity of the closest records and presence of suitable habitats, it is likely that the Site could support multiple foraging / commuting bat species.

4.21 One large oak along the northern boundary of the Site provides good suitability for roosting bats, with multiple crevices recorded during the survey. Nevertheless, mature trees are generally absent from boundary hedgerows and as such roosting opportunities for bats on or adjacent to the Site are limited.

Dormouse

4.24 No records of dormouse *Muscardinus avellanarius* were identified within the search area.

Water Vole

4.25 No records of water vole *Arvicola amphibius* were identified within the search area. There are no watercourses close to the Site.

Otter

4.26 No records of otter *Lutra lutra* were identified within the search area. There are no watercourses close to the Site.

Other Mammals

Brown Hare

4.27 Two records of brown hare were identified within the search area, dating from 2006 and 2009 1.2km south-west and 1.7km south-east respectively. Open farmland habitats similar to those found on-site are suitable for brown hare. However, no signs of hare were recorded during the survey.

Hedgehog

4.28 Nineteen records of hedgehog *Erinaceus europaeus* were identified within the search area, dating from 1985 to 2015. The closest record is c. 0.5km from the Site from 2009. The hedgerows to the north and east and field margins surrounding the Site offer suitable habitats for foraging and dispersing hedgehogs. Considering the proximity of the closest records

and the presence of suitable habitats it is likely that the Site could support hedgehogs. The retention of the Sites hedgerows and some marginal grassland areas will preserve suitable habitat and movement routes for this species to continue to navigate the area.

Harvest Mouse

4.29 No records of harvest mouse *Micromys minutus* were identified within the search area.

Birds

4.30 A total of 170 records of 35 bird species were identified within the search area, dating from 1985 to 2019. Those of potential relevance to the Site include the following, all included on the Red-list on Birds of Conservation Concern 5: redwing *Turdus iliacus*, mistle thrush *Turdus viscivorus*, corn bunting *Emberiza calandra*, fieldfare *Turdus pilaris*, spotted flycatcher *Muscicapa striata*, yellow hammer *Emberiza citronella*, swift *Apus apus* and starling *Sturnus vulgaris*. All the above species have been recorded within 0.5km of the Site. The boundary hedgerows and trees are likely to support a wide variety of common and widespread species. A notable assemblage of farmland birds is not anticipated due to the small nature of the Site. Breeding birds are not considered to pose a constraint to development.

4.31 One historic record of a barn owl *Tyto alba* was returned, located within Ham Dingle local nature reserve (c. 1.3km north-east of the Site), dating from 1985. The mature oak tree along the northern boundary provides some suitability for barn owls with a large cavity in the trunk. Nevertheless, no signs of barn owl were recorded during the survey.

Reptiles

4.32 No records of reptile species were identified within the search area. Although the arable field margins and area of grass along the railway bank provide some suitability for passing reptiles, there is not expected to be a large population due to the lack of structure within the grassland, as well as more suitable areas (such as the bank itself) in a very close proximity. Although reptiles may occur in the grassland adjacent to the railway line no significant affects to reptile populations are expected.

Amphibians

4.33 A total of 18 records of four amphibian species were identified within the search area, including common toad *Bufo bufo*, common frog *Rana temporaria*, smooth newt *Lissotriton vulgaris* and great crested newt *Triturus cristatus*. The closest record is of a great crested newt in 1985, located c. 1km north west of the Site in a pond within the grounds of the Stourbridge Golf Course.

4.34 A more detailed appraisal of the Site in respect of great crested newt is provided below.

Great Crested Newt

4.35 Despite spending much of their annual lifecycle within the terrestrial environment, great crested newts are dependent upon the presence of suitable aquatic breeding habitat in order for a population to persist. No potential breeding ponds were identified on-site during the Site survey and only one other pond is present within a dispersible range of the Site, based on OS mapping.

4.36 The Site is used annually for crops and the arable field margins, grassland adjacent to the railway line and hedgerows to the north and west offer limited suitability for great crested newts. Considering the age of the record and distance and isolation of the closest pond to the Site, it is unlikely that the Site supports great crested newts.

Invertebrates

4.37 A total of 61 records of 37 invertebrate species were identified within the search area dating from 1985 to 2020. The majority of the records are of BAP species of butterflies and moths. Those of potential relevance to the Site include white-letter hairstreak *Satyrium w-album,* small heath *Coenonympha pamphilus* and shaded broad-bar *Scotopteryx chenopodiata.*

4.38 The Site is not located within an Important Invertebrate Area (IIA); however, the hedgerow and grassy marginal habitats could be suitable for a range of common and widespread insect species.

5.0 DISCUSSION AND RECOMMENDATIONS

Nature Conservation Designations

Non-Statutory

Aqueduct Railway Cutting SLINC

5.1 The SLINC is located c. 10m south-west, accessed via a public footpath which runs diagonally through the Site. Due to its proximity, the LWS has been considered in relation to potential development-related impacts. An increase in public access and associated impacts such as trampling and littering is possible, but the biodiversity interest of this SLINC is not especially sensitive. It is recommended that a buffer is provided between the built development and the railway corridor, which can be used to provide supplementary natural habitats that will support the wildlife corridor and biodiversity functions of this local wildlife site. Additionally, the provision of public open space within the development will provide alternative on-site recreation opportunities. Overall, these measures are anticipated to help avoid adverse impacts to the SLINC.

Habitats and Flora

5.2 Emerging legislation and planning policy seek to leave biodiversity in a better state than prior to development, i.e. development should deliver a Biodiversity Net Gain (BNG).

5.3 The Site is dominated by habitats of limited ecological interest. As such, development of the Site would present opportunities to deliver measurable ecological enhancement through the creation of more valuable habitats alongside any proposals, i.e. as part of the Site's green infrastructure provision. By retaining adjacent hedgerows and delivering new habitats such as wildflower grassland and scrub on areas currently in arable use, we anticipate that a net gain in biodiversity can be achieved on-site.

5.4 It is recommended that the scheme design be informed by the application of a 'Biodiversity Impact Assessment Calculation', making use of the current Biodiversity Metric published by Natural England, to provide a quantitative assessment of losses or gains in biodiversity. This will enable future planning applications to be made in-line with emerging legislative frameworks and policy.

5.5 The Biodiversity Impact Assessment Calculation should be informed by habitat condition assessments.

Hedgerows

5.6 The Site is bounded on the northern and eastern boundaries by native hedgerows. Hedgerows comprise a Section 41 Habitat of Principal

Importance and represent important foraging, refuge and dispersal habitat for a range of fauna. These features should be retained and protected, where possible.

5.7 There is an opportunity to increase the hedgerow resource within the Site, and it is recommended that new hedgerow planting is incorporated into the landscape scheme to fill existing gaps in the Site boundary. This will result in new and improved green infrastructure corridors around and across the Site that will also improve connectivity with off-site green infrastructure such as the Aqueduct Railway Cutting SLINC to the south-west.

Fauna

Bats

5.8 Some linear features at the Site offer potential opportunities for dispersing and foraging bat species. Any bat activity is expected to be limited due to the open boundaries to the south and the west and arable nature of the Site. On balance of the small size of the land parcel and limited suitable features for bats, it is recommended that a static monitoring-based approach would be sufficient to determine frequency, diversity and abundance of bat species at the Site.

5.9 The mature oak tree on the northern boundary of the Site is likely to provide high roosting potential for bats, and should therefore be retained and buffered as part of any development proposals at the Site.

Nesting birds

5.10 All wild birds are protected from killing and injury, and their nests and eggs are protected from damage and destruction, under the Wildlife and Countryside Act 1981 (as amended). Therefore, any clearance of nesting habitat or features required to facilitate the development should avoid the period between March and August (inclusive) when nesting birds are most likely to be present. If this is not possible, habitat will need to be checked for nesting birds by a suitably qualified ecologist prior to clearance with works only proceeding if no nesting evidence or behaviour are observed.

Reptiles

5.11 Reptiles are likely to utilise the grassy railway bank and therefore the grassland to the west of the Site for foraging and shelter. However, given the narrow, sub-optimal nature of the arable field margins and grassland to the west on-site, any population utilising on-site habitats is likely to be small and the distribution restricted. A Reptile Mitigation Strategy, to set out precautionary measures to be adopted during construction works and on-site habitat enhancements for this species, should be produced and implemented, as a condition of any planning consent.

Summary of Recommendations

5.12 Based on the ecological constraints identified above, Table 2 summarises recommendations for further work necessary to determine the need for, and scope of, any avoidance, mitigation and/or compensation measures to address potential adverse effects of development. The outcome of this further work will inform an EcIA of the final scheme.

Table 2. Recommendations for further investigation/survey

Ecological Feature	Further Work	Applicable Timescales
Aqueduct Railway Cutting SLINC	Sensitive scheme design to buffer this SLINC and provide an appropriate mitigation approach	Pre-planning
Habitat condition assessments	Botanical surveys of on-site hedgerows	Spring / summer
Bats	Seasonal periods of automated static monitoring	Spring, summer and autumn
Reptiles	Sensitive working methods to be detailed in Reptile Mitigation Strategy	Planning Condition

Opportunities for Ecological Enhancement

5.13 To promote adherence to the NPPF and adopted and emerging development plan policies, the following opportunities for ecological enhancement have been identified:

- Aquatic habitat creation to provide new aquatic opportunities and increase biodiversity
- Incorporation of native plants and those of wildlife importance in to landscaping scheme to provide foraging opportunities for birds, invertebrates and bats
- Improved connectivity of green infrastructure with new hedgerow planting and infill planting along the southern boundary
- Provision of strategically placed green infrastructure at the south of the Site to improve connectivity to the wider area
- Provision of new bat roosting opportunities within new buildings
- Provision of bird nesting opportunities within new buildings
- Provision of hedgehog gaps in new fencing to promote habitat connectivity across and within the Site

6.0 CONCLUSIONS

6.1 Confirmed ecological constraints to development at the Site have been identified as the presence of:

- Aqueduct Railway Cutting SLINC
- Hedgerows and mature trees
- Nesting Birds

6.2 The following additional investigation/survey work is recommended to inform an evidence-based EcIA of the proposed development, such that suitable ecological impact avoidance, mitigation and/or compensation measures may be adopted:

- Habitats condition assessments
- Seasonal bat static monitoring surveys

6.3 Baseline biodiversity calculations for the Site should be used to inform an iterative approach to scheme design, such that on-site biodiversity net gain targets are achieved. Areas for new habitat creation to help achieve net gain have been provided. This approach to delivering net gain, together with the other recommendations for ecological enhancements, will aid accordance with policies in the emerging Dudley Local Plan and associated Nature Conservation SPD.

6.4 No overriding constraints to development are anticipated. With arable land predominating, the ecological impacts from development of this area are expected to be limited. A small number of further surveys (as above) are recommended and will help to inform the approach to development and the final assessment of impacts. There is scope to deliver a range of ecological enhancements alongside the scheme and it should be possible to demonstrate a biodiversity net gain.

7.0 REFERENCES

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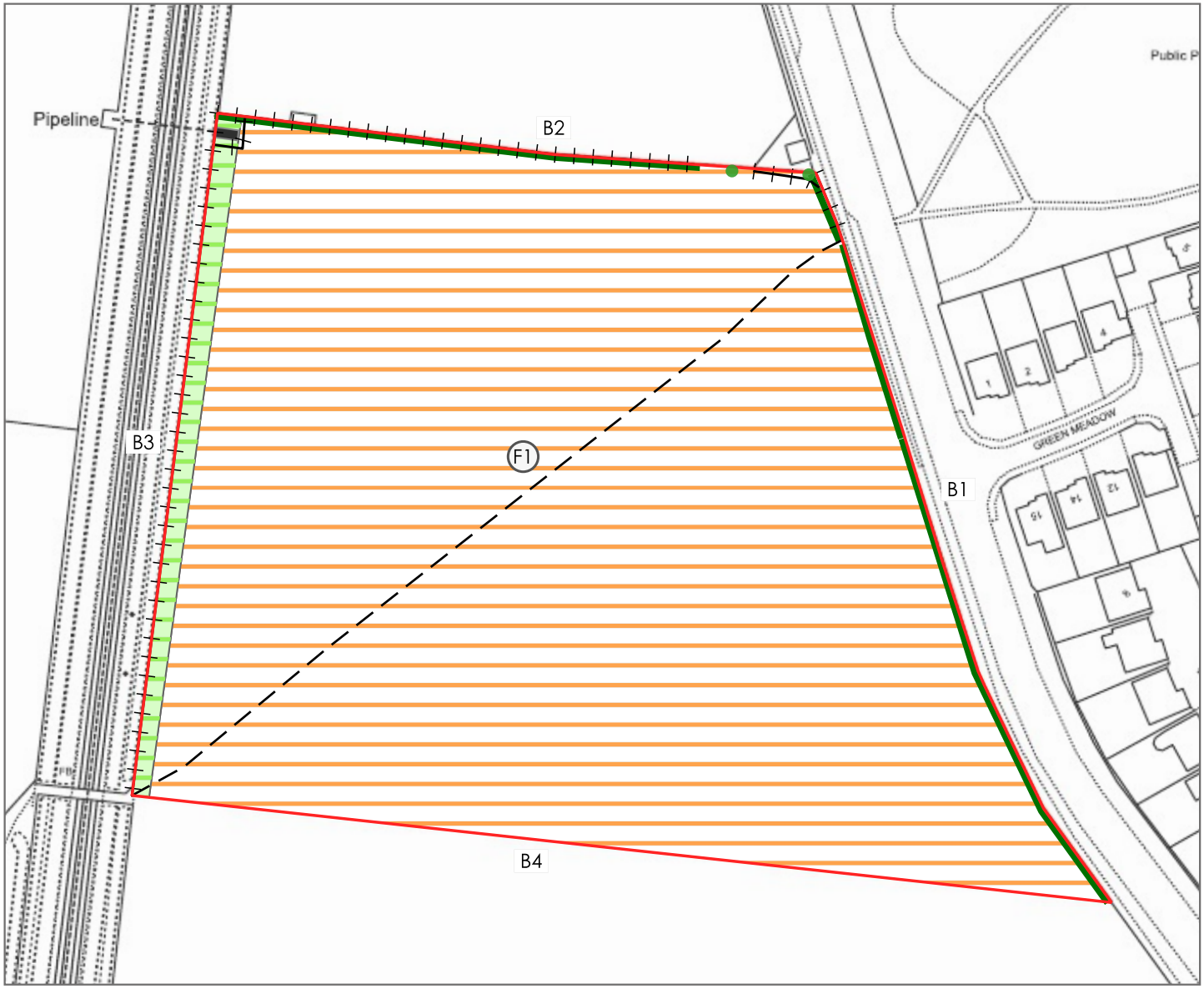
Appendix A

Habitats Plan & Habitat Summary Table



Legend

- Site boundary
- Other neutral grassland (g3c)
- Cereal crops (c1c)
- Infrastructure
- Hedgerows (h2)
- Hedgerow reference
- Field reference
- Fence
- Public footpath
- Individual trees (indicative location)

Habitats are illustrated using UK Habitat Classification (UKHab) symbology

0 50 100 m

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Project	Worcester Lane, Stourbridge	Date June 2022	Drawing No. CSA/6046/100
Drawing Title	Habitats Plan	Scale Refer to scale	Rev -
Client	The Feoffees of Old Swinford Hospital	Drawn LM	Checked AM

Table 1. UK Habitat Classification Summary Table

Habitat Parcel Number	Habitat Type	Habitat Code(s)	Description
F1	Cereal crops	c1c	Field sown with wheat
F1	Arable field margins	c1a	Arable field margins, 0.5m wide along B1 and 1m wide along B2 and B3. Partially managed with one annual cut suspected. Species include creeping thistle, dock, common nettle, creeping buttercup, cleavers, cow parsley, hogweed, cock's-foot and false oat-grass.
B3	Semi-improved grassland	g3c	Infrequently managed grassland strip adjacent to the off-site railway bank along B3. Species include Yorkshire-fog, perennial rye-grass, wall speedwell, field horsetail, white clover, common chickweed and great willowherb.
B1 & B2	Hedgerows	H2	Native species hedgerows with varying management. Species within B1 include hawthorn, blackthorn, oak, dogwood, hazel and elder. Species within B2 include hawthorn, blackthorn, goat willow, hazel, oak, ash and sycamore.

Appendix B

Legislation and Planning Policy

1.1. The **Conservation of Habitats and Species Regulations 2017** (as amended) make prescriptions for the designation and protection of Sites of Community Importance ('European sites', i.e. Special Areas of Conservation and Special Protection Areas) and European Protected Species (EPS). The latter include all native bats, great crested newts, dormice, otters and certain reptiles, listed under Annex II of the Regulations. Following the UK's departure from the European Union, the provisions of the Regulations have been retained through enactment of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which came into force on 31 December 2020.

1.2. The **Wildlife and Countryside Act 1981** (as amended, principally by the Countryside and Rights of Way Act 2000) forms the basis for protection of statutory designated sites of national importance (e.g. Sites of Special Scientific Interest; SSSIs) and native species that are rare and vulnerable in a national context. Additionally, badgers are protected under the **Protection of Badgers Act 1992**.

1.3. The **Environment Act 2021** received Royal Assent in November 2021. Through an amendment to the Town and Country Planning Act 1990 the Environment Act will introduce a mandatory requirement for all planning permissions to be conditional upon the submission of a Biodiversity Gain Plan for approval by the Local Planning Authority. The Plan will need to demonstrate a net gain of at least 10% in the biodiversity value of the development site. These provisions are not yet in force, pending their enactment through secondary legislation (expected November 2023).

1.4. Section 40(1) of the **Natural Environment and Rural Communities (NERC) Act 2006** states that each 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." This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications, with particular regard to the Section 41 (S41) lists of 56 habitats and 943 species of principal importance. The UK Biodiversity Action Plan (BAP) has been superseded by the Biodiversity 2020 Strategy, however Local BAPs continue to influence biodiversity management and conservation effort, including through the spatial planning system, at the local scale.

1.5. The **National Planning Policy Framework (2021)** (NPPF) sets out government planning policies for England and how they should be applied. With regards to ecology and biodiversity, Chapter 15: Conserving and Enhancing the Natural Environment, paragraph 174, states that the planning system and planning policies should minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

1.6. Paragraph 180 sets out the principles that local planning authorities should apply when determining planning applications:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts).
- 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.
- 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.
- 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.

1.7. The **Government Circular 06/2005**, which is referred to within the NPPF, defines statutory nature conservation sites and protected species as a material consideration in the planning process.

1.8. Local planning policies of relevance to ecology, biodiversity and/or nature conservation have been set out in Table 1 below. This encompasses policies from the Black Country Core Strategy (2011) and more specific policies arising from these, which are set out in the Dudley Borough Development Strategy (2017). A Nature Conservation Supplementary Planning Document (2016) is also available and contains relevant advice.

Table 1. Summary of regional and local planning policy relating to ecology

The Black Country Core Strategy 2011	
Policy ENV1 – Nature Conservation	'Development within the Black Country will safeguard nature conservation, inside and outside its boundaries by ensuring that: • Development is not permitted where it would harm internationally (Special Areas of Conservation), nationally (Sites of Special Scientific Interest and National Nature Reserves) or regionally (Local Nature Reserve and Sites of Importance for Nature Conservation) designated nature conservation sites; • Locally designated nature conservation sites (Sites of Local Importance for Nature Conservation), important habitats and geological features are protected from development proposals which could negatively impact upon them;

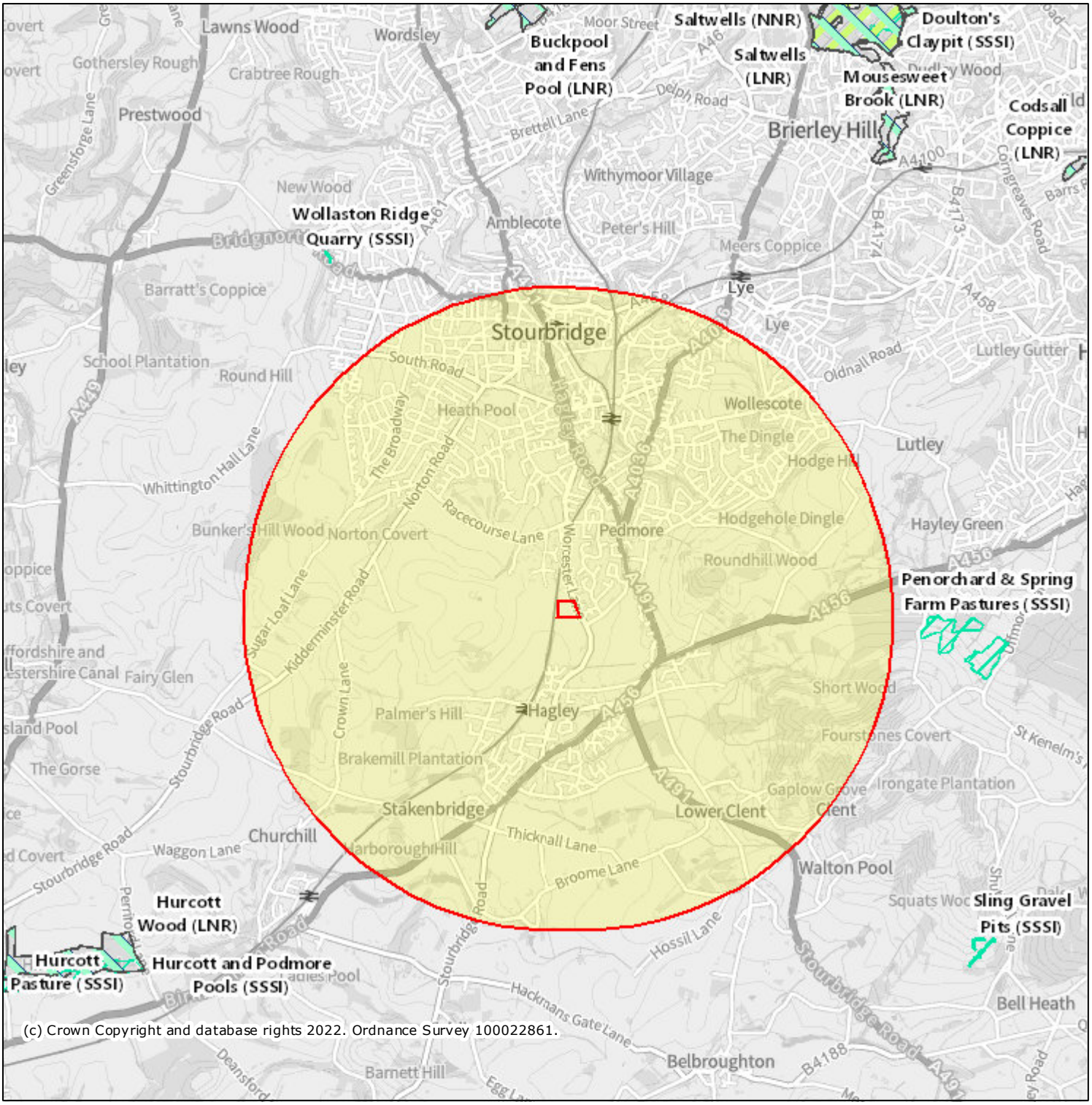
	• The movement of wildlife within the Black Country and its adjoining areas, through both linear habitats (e.g. wildlife corridors) and the wider urban matrix (e.g. stepping stone sites) is not impeded by development; • Species which are legally protected, in decline, are rare within the Black Country or which are covered by national, regional or local Biodiversity Action Plans will not be harmed by development. Adequate information must be submitted with planning applications for proposals that may affect any designated site or important habitat, species, or geological feature, to ensure that the likely impacts of the proposal can be fully assessed. Where the necessary information is not made available, there will be a presumption against granting permission. Where, exceptionally, the strategic benefits of a development clearly outweigh the importance of a local nature conservation site, species, habitat or geological feature, damage must be minimised. Any remaining impacts, including any reduction in area, must be fully mitigated. Compensation will only be accepted in exceptional circumstances. A mitigation strategy must accompany relevant planning applications. Current designated nature conservation sites including Local Nature Reserves will be carried forward from existing Proposals Maps, subject to additions and changes arising from further studies. Local Authorities will look to designate additional nature conservation sites as necessary in conjunction with the Local Sites Partnership and consequently sites may receive new, or increased, protection over the Plan period. All appropriate development should positively contribute to the natural environment of the Black Country by: • Extending nature conservation sites; • Improving wildlife movement; and/or • Restoring or creating habitats / geological features which actively contribute to the implementation of Biodiversity Action Plans (BAPs) and/or Geodiversity Action Plans (GAPs) at a national, regional or local level. Details of how improvements (appropriate to their location and scale) will contribute to the natural environment, and their ongoing management for the benefit of biodiversity and geodiversity, will be expected to accompany planning applications. Local authorities will provide additional guidance on this in Local Development Documents and SPDs where relevant.

Dudley Borough Development Strategy 2017	
Policy S21 – Nature Conservation Enhancement, Mitigation and Compensation	Dudley Council will safeguard and enhance designated nature conservation sites, habitats and features through the development process and in accordance with the Core Strategy, in particular Policy ENV1. Developments in the Borough will be positively encouraged where they demonstrate improvements, expansion or increased links to nature conservation sites, evidenced from up-to-date ecological surveys. Any ecological surveys will need to be carried out in accordance with BS42020 "Biodiversity in Planning and Development" (or the most recent equivalent guidance / code of practice), and provide a locally specific interpretation if necessary. Exceptionally, where the strategic or community benefits of a development clearly outweigh the nature conservation importance of the area impacted upon, Dudley Council will ensure any damage or loss of nature conservation assets is fully offset by additional nature conservation improvement works. It will be expected that these will normally be accommodated on-site. However where there are exceptional circumstances, which prevent this, off-site works will be required instead. Where consequential harm to biodiversity occurs as a result of a development, the level of improvement works needed to balance this will be assessed on a site by site basis, using DEFRA's Biodiversity Offsetting standards or relevant superseding government advice.
Policy S22 – Mature trees, Woodland and Ancient Woodland	Development which would adversely affect Ancient Woodland and Ancient Trees will not be permitted, and measures will be taken to restore these areas, and where appropriate, expand them with new complementary planting, particularly to encourage linked woodland areas. In addition, the Council will ensure that other woodland as well as ancient, notable or veteran trees are protected and will seek to encourage the appropriate management of existing trees and woodland, and additional tree planting. Where trees are affected by development, applicants will be required to provide full details of any impact. Proposals involving the loss of mature and semi-mature trees will normally be required to include replacement tree planting. The Council will require that native species of local provenance are used in planting and landscaping wherever possible. A list of suitable species can be found in Dudley Council's adopted Nature Conservation SPD.
Nature Conservation Supplementary Planning Document (2016)	
Nature Conservation SPD	This SPD sets out detailed guidance for protecting and enhancing nature conservation within Dudley Borough and is aimed at all those involved in the submission and determination of planning applications where nature conservation needs to be considered.

Appendix C

Desk Study Information

6046 3km Site Search



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Sites of Special Scientific Interest (England)

0 1.5 3
km

Projection = OSGB36
xmin = 376900
ymin = 275900
xmax = 403800
ymax = 288100

Map produced by MAGIC on 21 June, 2022.

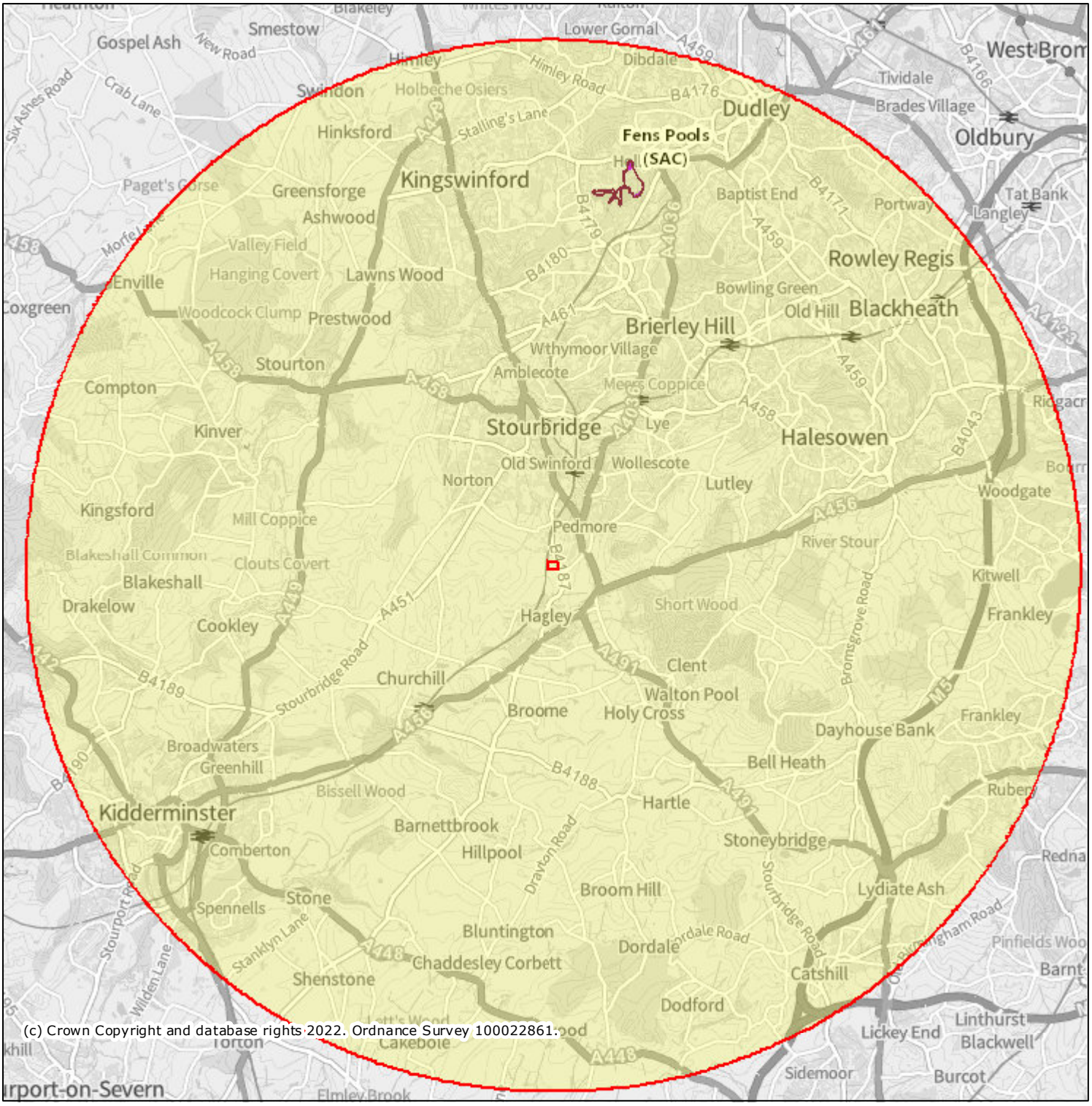
Site Check Report Report generated on Tue May 31 2022
You selected the location: Centroid Grid Ref: SO90588140
The following features have been found in your search area:

Local Nature Reserves (England)
No Features found

National Nature Reserves (England)
No Features found

Sites of Special Scientific Interest (England)
No Features found

6046 10km Site Search



Legend

- Ramsar Sites (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

0 3 6
km

Projection = OSGB36
xmin = 363500
ymin = 269500
xmax = 417300
ymax = 293900

Map produced by MAGIC on 21 June, 2022.

Site Check Report Report generated on Tue May 31 2022
You selected the location: Centroid Grid Ref: SO90588140
The following features have been found in your search area:

Special Areas of Conservation (England)

Name	FENS POOLS
Reference	UK0030150
Hectares	20.24
Hyperlink	http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030150

Ramsar Sites (England)
No Features found

Proposed Ramsar Sites (England)
No Features found

Possible Special Areas of Conservation (England)
No Features found

Special Protection Areas (England)
No Features found

Potential Special Protection Areas (England)
No Features found

Appendix D

Photographs

Photograph 1. Typical view of the Site, photograph facing west.

Photograph 2. Typical view of the Site. Photograph facing south-west.

Photograph 3. Photograph of the grassland bank along the western boundary of the Site. Facing south.

Photograph 4. Photograph showing B2 at the Site.

Photograph 5. Photograph showing B1 at the Site.

Photograph 6. Mature oak tree along B2. Photograph facing east.

Appendix E

Habitats and Flora Species List

Table 1. Habitat Polygons Flora Species List

Site Name	*Worcester Lane, Stourbridge*			
Survey Date and Surveyor(s)	*26/05/2022 Lucy Moorhouse*			
Scientific Name	**Common Name**	**Habitat Parcel Number/Habitat Type**		
		F1	*Arable Field Margin*	*G1*
Ferns				
Pteridium aquilinum	Bracken		X	X
Herb Species				
Anthriscus sylvestris	Cow parsley		X	
Arctium sp.	Burdock			X
Artemisia vulgaris	Mugwort		X	
Bryonia dioica	White bryony		X	X
Cirsium arvense	Creeping thistle		X	X
Cirsium vulgare	Spear thistle		X	X
Epilobium hirsutum	Great willowherb			X
Equisetum arvense	Field horsetail		X	X
Galium aparine	Cleavers		X	
Geranium molle	Dove's-foot crane's-bill			X
Geranium robertianum	Herb Robert		X	
Heracleum sphondylium	Hogweed		X	X
Lamium album	White dead-nettle		X	
Rumex sp.	Dock			X
Senecio vulgaris	Groundsel		X	
Silene dioica	Red campion			X
Silene latifolia	White campion		X	X
Sisymbrium officinale	Hedge mustard		X	
Sonchus asper	Prickly sowthistle			X
Stellaria media	Common chickweed			X
Taraxacum agg.	Dandelion		X	
Trifolium repens	White clover		X	X
Urtica dioica	Common nettle		X	
Veronica arvensis	Wall speedwell			X
Veronica hederifolia	Ivy-leaved speedwell		X	X
Grasses				
Anisantha sterilis	Barren brome		X	X
Arrhenatherum elatius	False oat-grass		X	
Bromus hordeaceus	Soft-brome		X	X
Dactylis glomerata	Cock's-foot		X	X
Holcus lanatus	Yorkshire-fog		X	X
Hordeum murinum	Wall barley			X
Lolium perenne	Perennial rye-grass			X
Poa sp.	Meadow-grass		X	X
Crops				
Triticum aestivum	Bread wheat	X		
Woody Species				
Broadleaved				
Rubus fruticosus agg.	Bramble		X	X

Table 2. Linear Habitats Flora Species List

Site Name	*Worcester Lane, Stourbridge*		
Survey Date and Surveyor(s)	*26/05/2022 Lucy Moorhouse*		
Scientific Name	**Common Name**	**Habitat Parcel Number/Habitat Type**	
		B1	*B2*
Ferns			
Pteridium aquilinum	Bracken	X	X
Herb Species			
Bryonia dioica	White bryony	X	X
Woody Species			
Broadleaved			
Acer pseudoplatanus	Sycamore		X
Cornus sp.	Dogwood	X	
Corylus avellana	Hazel	X	X
Crataegus monogyna	Hawthorn	X	X
Fraxinus excelsior	Ash	X	X
Prunus spinosa	Blackthorn	X	
Prunus sp.	Prunus (domesticated)		X
Quercus sp.	Oak	X	X
Rubus fruticosus agg.	Bramble	X	
Salix caprea	Goat willow		X
Salix sp.	Willow		X
Sambucus nigra	Elder	X	X
Viburnum opulus	Guelder-rose		X

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