



Newt Conservation Partnership

Ecological Assessment

for Planning Application reference: PP-12767845

Land at Rowley Green Meadow, Stoke Park Farm

Proposed new pond complex of up to seven new clean water wildlife ponds at Stoke Park Farm, Eastleigh

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1. Summary Overview

1.1 Newt Conservation Partnership (NCP) have prepared this report in relation to the creation of a complex of up to seven new wildlife ponds and associated hedge and tree planting, at Rowley Green Meadow, Stoke Park Farm, Eastleigh.

1.2 Background data is based primarily on a Preliminary Ecological Appraisal (PEA) of Stoke Park Farm carried out by Ecus Ltd in early 2023 (PEA Ecus 2023) for Eastleigh Borough Council (EBC). This was supplemented and updated by reviewing records of protected and notable species and SINC held by Hampshire Biodiversity Information Centre (HBIC) and provided to Eastleigh Borough Council (EBC) in August 2023 under their Service Level Agreement. Documents produced by Burton Reid Associates for EBC as part of their planning application for a SANG at Stoke Park Farm were also reviewed for new and relevant ecological information (Stoke Park Farm SANG EcIA 2023) and (Bird Hazard Assessment and Management Plan Stoke Park Farm 2023)

1.3 Additional site specific information was collected by Anna-Marie Dennis between March and November 2023.

1.4 This document sets out to identify the ecological features of the site, assess any likely significant effect from the project, and describe any mitigation required.

1.5 The project is within the risk zone for The River Itchen SAC and the River Itchen SSSI. The project is expected to have no likely significant effects on these designated sites due to a lack of impact pathways.

1.6 The project is expected to have a positive impact on Great crested newt (*Triturus cristatus*), which are currently not present on the site but are recorded locally. The proposed habitat scheme is also expected to benefit a wide range of other wildlife including birds, invertebrates, mammals and amphibians.

1.7 This is a nature conservation and biodiversity enhancement project, and as such should be supported according to paragraph 180 (d) of the National Planning Policy Framework (2021)

“development whose primary objective is to conserve or enhance biodiversity should be supported”

1.8 This project would also support the following local policies:

- EBC Local Plan Policy DM11 – Nature Conservation
- EBC Biodiversity Strategy 2022-2032
- EBC Health and Wellbeing Corporate Strategy (2018)
- EBC Climate Change and Environmental Emergency Strategy
- EBC Tree Strategy 2022-2030

2. Project aims

2.1 Proposed creation of a mosaic of seven clean water wildlife ponds with associated hedge and tree planting at Rowley Green Meadow, Stoke Park Farm, to increase the biodiversity value of the site and provide suitable breeding habitat for great crested newt (GCN).

2.2 The proposed work aims to increase the size and extent of the GCN population and associated wetland wildlife by:

- Providing long-term high-quality habitat for GCN, with management funded for the full 25-years agreement period to ensure suitable condition are maintained for breeding population of this species.
- Creating a clean water pond complex which will provide habitat for GCN and a range of wetland species.
- Improving connectivity between GCN sites.

2.3 The proposed work will also improve the range and quality of other habitats at the site. This will be achieved by:

- Planting a new 350m hedgerow made up of mixed native species suitable for the site.
- Planting small copses of native trees.
- Increasing the amount of natural scrub regeneration through management.
- Creating hibernacula suitable for amphibians' winter phase hibernation.
- Sowing a suitable wildflower mix in some areas of Rowley Green Meadow outside the application site – the mix will be determined in agreement with the EBC Ecology and Trees Manager taking into account the results of soil nutrient surveys.
- Managing part of the site as a hay meadow.

2.4 Figure 1 shows the proposed plan for Rowley Green Meadow, with the application site shown in red.

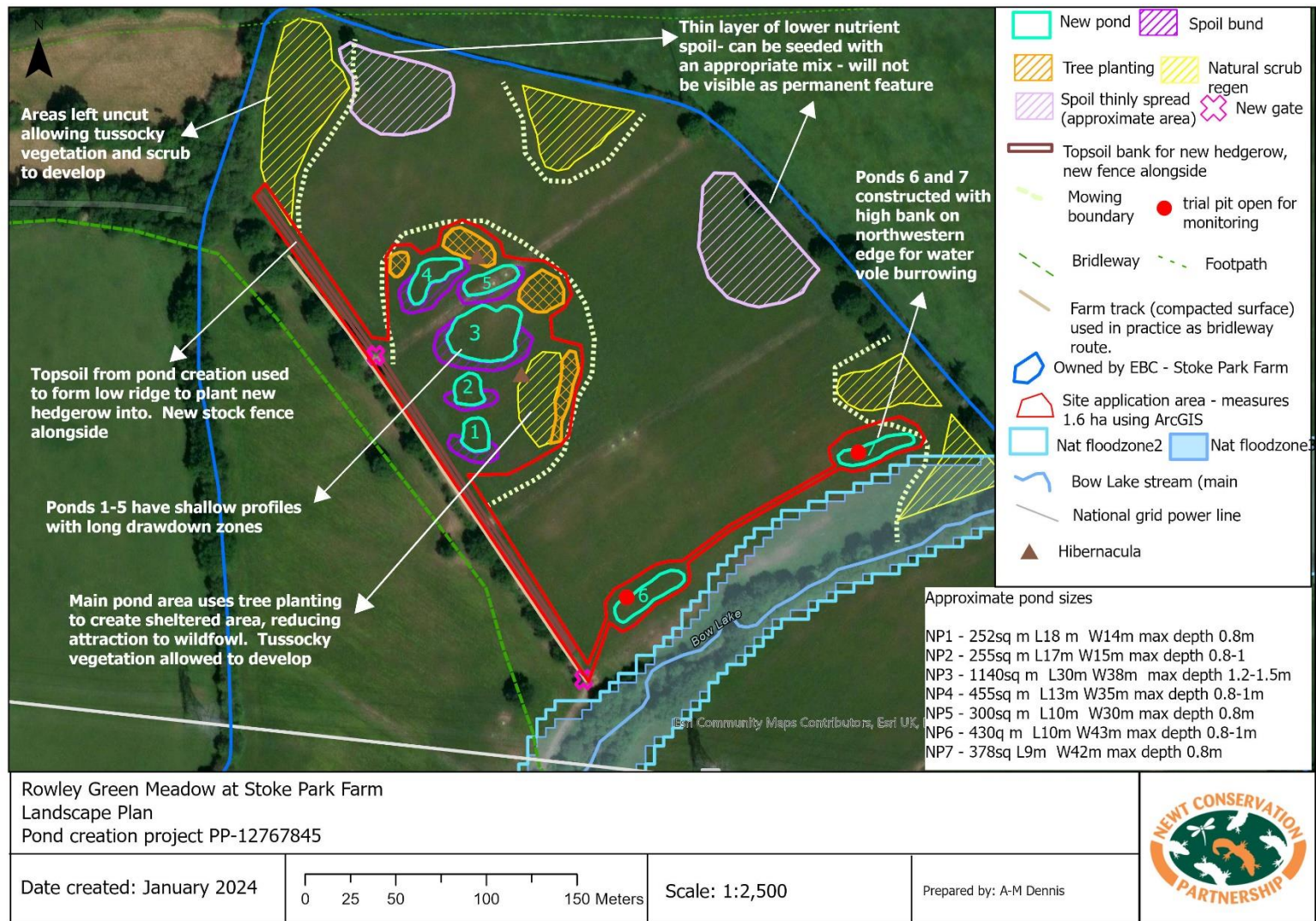


Figure 1: Landscape plan of proposed nature conservation project in Rowley Green Meadow

2.5 If approved, the work will be carried out by NCP under GCN Organisational Licence (WML-OR112) which is a Natural England approved District Licensing scheme for GCN developed by NatureSpace Partnership (NSP), the Amphibian and Reptile Conservation Trust (ARC) and the Freshwater Habitats Trust (FHT).

2.6 The Newt Conservation Partnership is working with landowners in over 60 Local Planning Authorities in England to deliver the creation and long-term management of wildlife-friendly ponds and surrounding habitat for GCN. Best practice guidelines for pond creation and GCN habitat creation and management, developed by FHT and ARC experts, are integral to the scheme. The scheme aims to increase the number of high-quality clean water ponds connected by suitable terrestrial habitat, creating a strategic network of favourable habitats where newt populations can thrive. EBC joined the Licence as part of the Hampshire and Isle of Wight region on 1st August 2023.

2.7 Rowley Green Meadow at Stoke Park Farm has been identified as a potential Compensation site. Compensation sites are secured for at least 25 years under legal agreement with the landowner. If the scheme is approved, NCP and EBC will enter into a legal agreement for:

- NCP to carry out the agreed habitat creation work.
- EBC to manage the site appropriately.
- NCP to monitor the ponds over 25 years and report the results to EBC and Natural England.

3. Site details

3.1 Stoke Park Farm is owned and managed by EBC. The site was operated as a dairy farm prior to 2021 and acquired by EBC in 2022.

3.2 Stoke Park Farm is approximately 1km east of Eastleigh, on the northeastern border of Bishopstoke. It lies within EBC and Bishopstoke Parish Council's administrative areas. The grid reference for the buildings and hardstanding at Stoke Park Farm is SU 47933 20268.

3.3 Stoke Park Farm totals approximately 103.12 hectares. A PEA carried out for EBC by Ecus Ltd in January 2023 (PEA Ecus 2023) identified that it "primarily comprised arable land (pasture) with pockets of woodland, hedgerows, lines of trees and farm buildings including a residential property", and that it "is surrounded by woodland to the south, arable fields to the north and suburban areas to the east and west".

3.4 Rowley Green Meadow is at the northeastern corner of Stoke Park Farm. It measures approximately 8 hectares and comprises former intensive grazing land. It is bordered by hedgerows to the north and east, the Bow Lake (stream) to the south, and a bridleway to the west. The central grid reference for Rowley Green Meadow is SU 47839 20946.

3.5 The application site is within Rowley Green Meadow and measures 1.62 hectares. The central grid reference for the application site is SU 47776 20921.

3.6 Figure 2 shows the locations of Stoke Park Farm, Rowley Green Meadow, and the application site within Rowley Green Meadow, along with the access to the site.

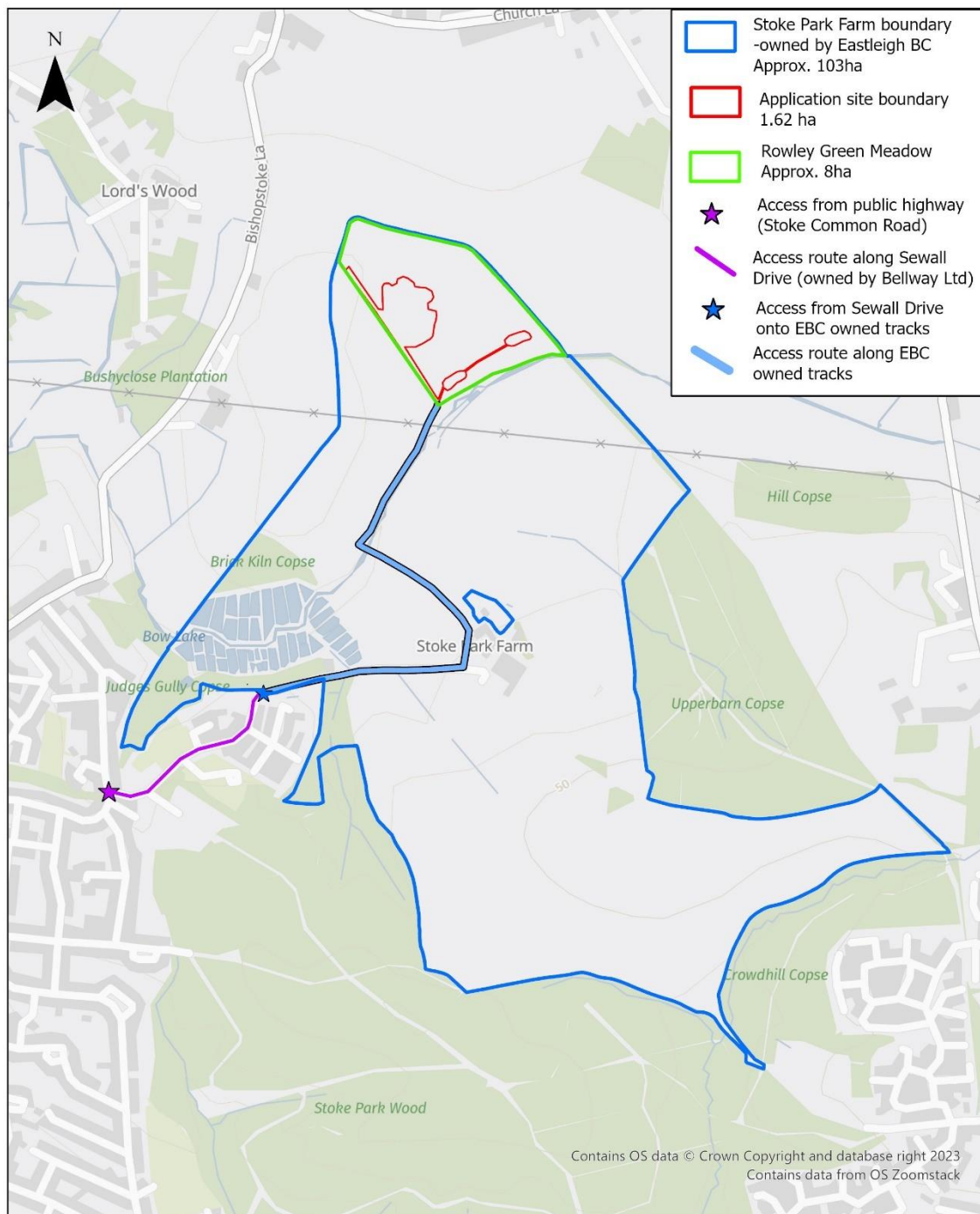


Figure 2 - location and access points

Date created: November 2023

Scale: 1:10,000

Scaled to A4

0 50 100 200 300 400 500 Meters

Created by: Anna-Marie Dennis



Figure 2: Location and access points

4. Method

4.1 Desk search

4.1.1 This ecological assessment has been undertaken following the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment (CIEEM, 2018).

4.1.2 The DEFRA MAGIC mapping tool (www.magic.gov.uk) was used to find statutory designated nature conservation sites and priority habitat within 2km of the sites. Statutory designated nature conservation sites are protected under current UK legislation and include Ramsar sites, Special Areas of Conservation (SAC), Special Protection Areas (SPA) Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR). Priority habitats are designated under Section 41 of the NERC Act (2006) and are priorities for nature conservation (either at a national or local level).

4.1.3 A PEA produced for EBC by Ecus in 2023 was consulted (PEA Ecus 2023).

4.1.4 HBIC provide information about locally designated nature conservation sites and records of notable and protected species to EBC as part of a Service Level Agreement. The records within 2km of Stoke Park Farm were supplied to EBC in August 2023 and to the report author in December 2023. They were cross-checked with the information in the PEA for any new information or older records of particular relevance for this project.

4.1.5 The EcIA (Stoke Park Farm SANG EcIA 2023) and Bird Hazard Assessment and Management Plan (Bird Hazard Assessment and Management Plan Stoke Park Farm 2023) produced for EBCs planning application for a SANG at Stoke Park Farm were also reviewed for any information relevant to the application site.

4.1.6 In Hampshire, local sites are called Sites of Importance for Nature Conservation (SINC) and a record of the sites and their criteria for designation is maintained by HBIC. Throughout this report, 'notable and protected species' refers to species that are legally protected or otherwise notable within Hampshire. It includes species with UK or European legal protection, on International Union for Conservation of Nature (IUCN) Lists of species classified as 'Threatened' and other species with national or county rarity and scarcity status.

4.2 Site Assessment

Site visits and walkovers took place on the following dates:

14th March 2023 – initial site meeting to identify potential for an NCP project at Stoke Park Farm (Anna-Marie Dennis – NCP Hampshire Project Officer, Paul Howe – EBC Ecology and Trees Manager, Rachel Hardy - EBC Countryside Manager).

28th March 2023 – Brief walkover of Rowley Green Meadow, identification of potential pond areas and terrestrial habitat that could be brought under agreement (Anna-Marie Dennis – NCP Hampshire Project Officer, Chris Worgan – NCP Hampshire Project Officer, Dr Pascale Nicolet – NCP Chief Executive Officer and Technical Director at Freshwater Habitats Trust).

22nd May 2023– Site walkover including hand augering of potential areas and looking for badger signs (Anna-Marie Dennis – NCP Hampshire Project Officer).

24th May 2023 - GCN eDNA survey of a Stoke Park Farm pond and search for otter sign in Bow Lake stream (Anna-Marie Dennis – NCP Hampshire Project Officer).

13th July 2023 – visit to Hampshire Carp Hatcheries, Sewall Drive – approx. 500m south-east of application site (Anna-Marie Dennis – NCP Hampshire Project Officer, Patrick Haughton – Hampshire Carp Hatcheries).

13th July – Site walkover and photos (Anna-Marie Dennis – NCP Hampshire Project Officer).

7th September 2023 - trial pits to check substrate – 5 backfilled and 2 kept open for monitoring (Anna-Marie Dennis – NCP Hampshire Project Officer, Dr Pascale Nicolet – NCP Chief Executive Officer, Aquascience Ltd staff).

25th September 2023 - test pits check and badger sign check (Anna-Marie Dennis – NCP Hampshire Project Officer).

4th October 2023 - Topographical survey (ground levels only) and test pit inspection, checked main access points to Bow Lake for otter sign (Anna-Marie Dennis – NCP Hampshire Project Officer, Encompass Ltd staff).

1st November 2023 - Test pit inspection and photos of surface water on site after heavy rain.

Given the nature and scale of the proposals, a breeding bird survey has not been carried out, but a survey for schedule 1 species and ground nesting birds will be carried out by an experienced ornithologist if any work is taking place during the bird nesting period.

5. Review of ecological information – designations and habitats

5.1 Statutory sites

5.1.1 MAGIC shows that the application site is within the Impact Risk Zone (IRZ) for The River Itchen SSSI and The River Itchen SAC. Both sites (which overlap) are approximately 740m to the east at the closest point to the application site. The IRZ applies to all planning applications (excluding householder applications), so the proposal meets the criteria for consultation with Natural England. Bow Lake (a main river which is a tributary of the River Itchen) is approximately 25m away at the nearest point from the application site. A shadow HRA has been submitted as part of the planning application.

5.1.2 Rowley Green Meadow itself has no statutory nature conservation designations.

5.2 Locally designated sites

5.2.1 The application site is not locally designated as a SINC.

5.2.2 Six SINC are within or border Stoke Park Farm and 34 SINC are within 2km of Stoke Park Farm.

5.2.3 No SINC border the application site. The nearest SINC are Brick Kiln Copse, which is 425m to the south-west, Upperbarn Copse which is 450m to the south-east, and Hill Copse which is 480m to the south-east.

5.3 Priority habitat (Habitat of Principle Importance)

5.3.1 No priority habitat is present in the application site. Rowley Green Meadow is bordered to the north and west by hedges which, although not mapped on MAGIC, are considered Habitats of Principal Importance (HPI). There are areas of Priority Habitat deciduous woodland at the SINC detailed above.

5.4 Habitats in the application site and immediate surroundings

5.4.1 The application site comprises modified grassland (previously managed intensively for cattle grazing with silage cuts on rotation) with two mature Oak trees (*Quercus robur*).

5.4.2 The dominant species is Perennial rye grass *Lolium perenne* with Cock's foot *Dactylis glomerata*, Annual meadow grass *Poa annua* and Tufted hairgrass *Deschampsia cespitosa* more frequent around the margin of the track and the old wire fences. There are occasional other common species of improved grassland such as Creeping buttercup *Ranunculus repens* and occasional Hard rush *Juncus inflexus* in the wetter areas.

5.4.3 Outside of the application site, within and bordering Rowley Green Meadow there are:

- Hedgerows to the northeastern border consisting of Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Elder *Sambucus nigra*, Field maple *Acer campestre* and Holly *Ilex aquifolium*.
- Five large semi- mature Pedunculate oak *Quercus robur* trees near this hedgerow.
- A tree line of Willow (white willow *Salix alba* and other Willow sp.) with a scrubby understorey and occasional riparian vegetation (mainly Common nettle *Urtica dioica*) alongside Bow Lake.
- A line of semi-mature Pedunculate oak *Quercus robur*, Ash *Fraxinus excelsior* and Blackthorn *Prunus spinosa* to the west of the track.
- The grassland nearest to the stream (in flood zones 2 and 3 and outside the application area) has more botanical variety than the rest of the field, though still consisting of common species of modified grassland such as Common nettle *Urtica dioica*, Red Dead-nettle *Lamium purpureum* and Chickweed *Stellaria media*.

5.4.4 Photographs of the habitats on site

Looking across application site from north to south July 2023



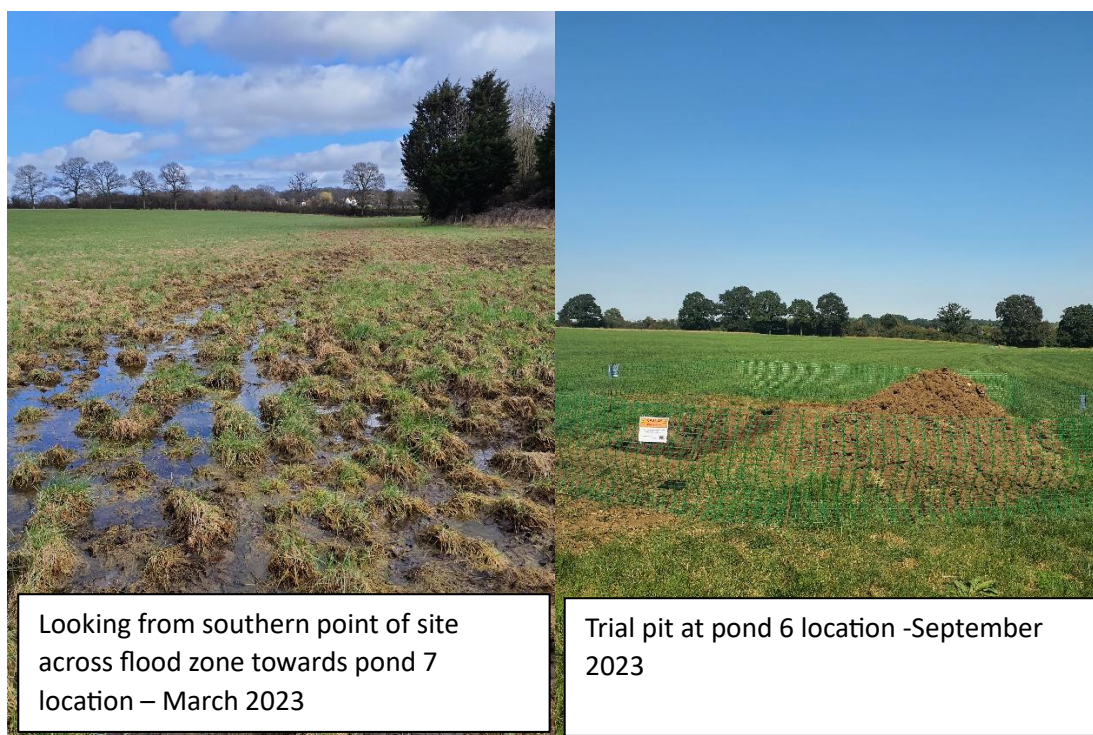
Site for ponds 1-5 looking north, November 2023



Looking south down the track to west of application site – showing existing oak tree in application site – July 2023



Outside application site – hedges and mature open growing Oak to north-east of application site – July 2023



6. Review of ecological information – species

6.1 Amphibians - desk study

6.1.1 HBIC returned 25 recent records (within the last ten years) of amphibians from within 2 km of the Site. These related to GCN *Triturus cristatus* (European Protected Species) and the common toad *Bufo bufo* (Biodiversity priority species NERC Act (2006)).

6.1.2 15 records of GCN were returned by HBIC. The closest record was 1.3 km northeast of the Site, dated 2015.

6.1.3 HBIC held 10 records of Common toad and 15 records of GCN within 2km of Stoke Park Farm (within the last 10 years). None of the records relate to Stoke Park Farm, and the nearest record was for GCN 1.3km from the application site.

6.1.4 Ponds in the vicinity of the site have been surveyed for GCN for other projects as follows:

- April/May 2012: Bottle trapping presence /absence (Stoke Park Farm SANG EcIA 2023) of ponds within 250m of residential development at Sewall Drive. No GCN were found at ponds surveyed at Bow Lake Fish Farm and Stoke Park Farm.
- May 2023: GCN eDNA survey of pond in proposed SANG area of SPF (Stoke Park Farm SANG EcIA 2023) with a negative result.

6.1.5 Modelling completed for the GCN District Licence held by EBC shows the application area as mostly 'Green' (not currently considered likely to have GCN present) with a smaller area of 'Amber' (moderate likelihood of GCN presence) around the location of proposed pond 6. The whole area is within the 'Strategic Opportunity Area' where habitat creation or restoration for GCN is likely to have the most benefit.

6.2 Amphibians - Site assessment

6.2.1 GCN eDNA surveys of waterbodies on around the site for this project were as follows:

- May 2023: GCN eDNA survey of holding pond south of farm buildings at Stoke Park Farm. Sample collected 24/5/23 by Anna-Marie Dennis and processed by NatureMetrics Ltd on 26/5/23 – negative result.
- May 2023: GCN eDNA survey of pond approx. 700m north of application site. Sample collected 24/5/23 by Anna-Marie Dennis and processed by NatureMetrics Ltd on 26/5/23 – positive result.

6.2.2 A visit to Bow Lake Fish Farm in July 2023 found that frogs, toads and small newts are frequently present in the fish farm ponds and ditches (pers. comm P. Haughton July 2023)

6.2.3 The application site currently has low value for amphibians due to the lack of cover in the modified grassland, and no amphibians were seen during site visits. The surrounding hedges and riparian woodland habitats do provide suitable habitat for amphibians to forage.

6.3 Badger - Desk study

6.3.1 There are records of Badger *Meles meles* at Stoke Park Farm. None of the records relate to the application site or within 30m. A badger sett was identified during ecological surveys for proposed SANG site in Stoke Park Farm in May 2023 (Stoke Park Farm SANG EcIA Burton Reid Associate 2023), this is over 500m away to the south.

6.4 Badger - Site assessment

6.4.1 No signs of badgers were found during site walkovers in May or September 2023 carried out by Anna-Marie Dennis. The small woodland to the north-west of the application site was inspected as far as the boundary of Stoke Park Farm in September 2023 and no signs of badgers were found.

6.4.2 The improved grassland in the application site is very likely to be used by badgers for foraging, along with the hedgerows, treelines and riparian habitat surrounding the site.

6.5 Bats – Desk study

6.5.1 HBIC returned 649 records of 11 bat species within 2 km of SPF. The closest records are to the south-east of the site boundary, for Soprano pipistrelle *Pipistrellus pygmaeus* in 2020.

6.6 Bats - Site assessment

6.6.1 There may be potential roost features (PRFs) in the semi-mature trees within the application site, and bats are likely to forage over the improved grassland.

6.6.2 Outside the application site, there are more PRFs in the semi-mature trees to the west of the track and to the north-east of the application site. Bats are very likely to hunt over the Bow Lake tree line and the boundary hedgerows.

6.6.3 There are low levels of light pollution surrounding the application site.

6.7 Birds - Desk study

6.7.1 The PEA (PEA Ecus 2023) noted 3446 records of 86 bird species from within 2 km of Stoke Park Farm. Of these:

- 26 are species that are protected under Schedule 1 of the WCA 1981
- 24 are species listed as Species of Principal Importance (SPI) under Section 41 of the NERC Act
- 58 are species listed as Red or Amber in the Birds of Conservation Concern (BoCC) (Stanbury et al., 2021)

6.7.2 The details can be found in Appendix 3 of the PEA 2023, submitted as a supporting document for this application.

6.7.3 A Breeding Bird Survey was carried out by Burton Reid Associates of the proposed SANG at Stoke Park Farm in 2023 (Bird Hazard Assessment and Management Plan Stoke Park Farm 2023). The following notable species were likely to be breeding on or adjacent to the site, which is approximately 500m from the application site and with similar habitat:

- *Bullfinch *Pyrrhula pyrrhula* (SPI, Amber), *Dunnock *Prunella modularis* (SPI, Amber), *Greenfinch *Carduelis chloris* (Red), Grey Wagtail *Motacilla cinerea* (Amber), Hobby *Falco subbuteo* (Schedule 1), House Sparrow *Passer domesticus* (SPI, Red), Mistle Thrush *Turdus viscivorus* (Red), Song Thrush *Turdus philomelos* (SPI, Amber), Starling *Sturnus vulgaris* (SPI, Red), *Woodpigeon *Columba palumbus* (Amber) and *Wren *Troglodytes troglodytes* (Amber).

The starred species were new notable / protected records, probably due to recent status changes.

6.8 Birds - Site assessment

6.8.1 The grassland in the application area is likely to be used for foraging by Barn owl *Tyto alba* and possibly other Schedule 1 bird species. It could also be used by ground nesting bird species, with relatively recent cessation of the dairy farming operation.

6.8.2 The hedges and trees surrounding the application area are likely to be used for feeding and nesting by a wide range of bird species.

6.9 Fish - Desk study

6.9.1 There are 88 records of notable or protected fish (of 6 species) within 2km of Stoke Park Farm. The large majority relate to the River Itchen and the Itchen Navigation. The nearest relevant records are for European Eel *Anguilla anguilla* from 2014 and 2009 near Bow Lake Fish Farm, and from 2011 approximately 160 east of the application site in the Bow Lake stream.

6.9.2 European eel is a Priority Species (NERC Act, 2006) and 'County Rare' (IUCN 2001).

6.10 Fish - Site assessment

6.10.1 The stream does not intersect the application area but is approximately 25m away at the nearest point.

6.11 Hazel dormouse - Desk study

6.11.1 The PEA found that there were no records of Hazel Dormouse *Muscardinus avellanarius* on site or within 2 km, but that it is possible that they may be present on site in suitable habitat.

6.11.2 The EcIA carried out for the proposed SANG in the southern section of Stoke Park Farm (Stoke Park Farm SANG EcIA 2023) reported that “surveys undertaken between April and September 2013 by Terence O’Rourke Ltd as part of the adjacent Sewall Drive residential development did not record the species being present during targeted presence/absence nest tube surveys (which included deployment of nest tubes along the western portion of Sewall Drive)”.

6.12 Hazel dormouse – Site assessment

6.12.1 The application site contains no suitable habitat. The riparian woodland and the hedges surrounding the site may be suitable at least for dispersal, although this is unlikely given that no Hazel dormouse were recorded during the targeted surveys of suitable habitat in 2013.

6.13 Hedgehog - Desk study

6.13.1 HBIC returned 40 recent records of Western European Hedgehog *Erinaceus europaeus* within 2km of SPF, the nearest record is approximately 700m to the north from 2017.

6.14 Hedgehog - Site assessment

6.14.1 The application site itself provides no suitable hedgehog habitat. Outside of the application site, the hedgerows and riparian tree line provide suitable hedgehog habitat.

6.15 Invasive Non Native Species (INNS) - Desk study

6.15.1 HBIC returned no recent records of INNS from within 2km of Stoke Park Farm.

6.16 INNS - Site assessment

6.16.1 No INNS were recorded during a walkover of the application site in May or July 2023. Outside the application area, Himalayan balsam *Impatiens glandulifera* was noted on a section of the Bow Lake to the south-west of the application area.

6.17 Invertebrates - Desk study

6.17.1 HBIC returned 424 records of notable invertebrate species within 2km of the site. None of the records relate to the application site.

6.17.2 Of the notable species, 23 are Priority Species (NERC Act, 2006) such as the Stag beetle *Lucanus cervus* and the Southern damselfly *Coenagrion mercuriale*.

6.18 Invertebrates – Site assessment

6.18.1 The improved grassland habitat in the application site appears to currently be of low to moderate value for invertebrates and is likely to support common and widespread species. The site was used intensively for dairy farming until November 2021, so although the site may have made some recovery, scarce or threatened species are unlikely to be present. There is no suitable habitat

for Stag beetle, although there is suitable habitat nearby in Stoke Park Farm. There is no suitable habitat for Southern damselfly in the application site or in the wider Stoke Park Farm site.

6.19 Otter - Desk study

6.19.1 There are 18 records within 2km for Otter *Lutra lutra*, all relating to the River Itchen or Itchen Navigation.

6.20 Otter - Site assessment

6.20.1 The riparian habitat along the Bow Lake stream is quite limited and is unlikely to be suitable for resting places. The section bordering Rowley Green Meadow was surveyed in May 2023 by Anna-Marie Dennis and no spraints, footprints or likely resting places were found.

6.20.2 Otter occasionally visit the Bow Lake Fish Farm (Pers. comm. P. Haughton July 2023). It is very likely that Otter use the Bow Lake stream for movement and dispersal within the wider area.

6.21 Plants - Desk study

6.21.1 12 records of notable or protected plants were found within 2km of Stoke Park Farm, relating to 6 individual species. None of these relate to Stoke Park Farm or the application area and would not be expected to occur in the present habitat.

6.22 Plants – Site assessment

6.22.1 The application site is mainly modified grassland. The dominant species is Perennial rye grass *Lolium perenne* with Cock's foot *Dactylis glomerata* Annual meadow grass *Poa annua* and Tufted hairgrass *Deschampsia cespitosa* more frequent around the margin of the track and the old wire fences. There are occasional other common species of improved grassland such as Creeping buttercup *Ranunculus repens* and occasional Hard rush *Juncus inflexus* in the wetter areas.

6.22.2 There are also two semi-mature Pedunculate Oak *Quercus robur* within the application area.

6.23 Reptiles – Desk study

6.23.1 There are 13 records for reptiles within 2km of SPF, relating to Common lizard *Zootoca vivipara*, Grass snake *Natrix Helvetica* and Slow worm *Anguis fragilis*. None of the records are from Stoke Park Farm or the application site.

6.24 Reptiles - Further assessment

6.24.1 The improved grassland habitat in the application site was used intensively for dairy farming until November 2021 and appears to be currently of low to moderate suitability for supporting reptiles. The surrounding hedges and riparian woodland habitats do provide suitable cover for reptiles.

6.25 Water vole – Desk study

6.25.1 There are 232 records of Water vole within 2km of the application site, with the nearest being 800m north-west of Stoke Park Farm from 2017. The most recent records are from 2020, mainly from the Itchen Navigation.

6.26 Water vole – Site assessment

6.26.1 There are more recent sightings of Water vole (2023) at the Bow Lake Fish Farm (Pers. comm. P. Haughton July 2023) with the ditches and ponds here providing suitable burrowing habitat.

6.26.2 The riparian habitat along the Bow Lake stream as it runs through Stoke Park Farm is unsuitable for Water voles to feed or burrow. However, Water vole are very likely to use the Bow Lake stream (approx. 25m from the application site) for movement and dispersal within the wider area.

6.26.3 There is currently no suitable habitat for Water vole within the application area.

7. Potential impacts, avoidance and mitigation for habitats and species

Ecological feature	Relevance to application site and potential impact pathways	Avoidance or mitigation within project	Overall impact assessment
The River Itchen SSSI and The River Itchen SAC.	740m to east at closest point, within Impact Zone (for all planning applications). Potential route for increased sediment to enter the Bow Lake (which eventually drains to the River Itchen) via the drain network during pond construction phase.	Pollution control measures will avoid pollutants or sediments entering the Bow Lake. Blocking drains and creating ponds within Rowley Green Meadow may reduce sediment and nutrient pollutant inputs to the Bow Lake over time.	The small scale of this nature improvement project and distance from the SAC/SSSI lead to no likely significant impact on the features of the SAC and SSSI – see shadow HRA.
SINCs	Nearest SINC are Brick Kiln Copse (425m to the south-west), Upperbarn Copse (450m to the south-east), and Hill Copse (480m to the south-east). Potential impact from introduction of seed sources or management changes.	Only native locally occurring species used within planting, no direct impact on SINC.	No likely significant impact on the SINC.
Habitats of Principle Importance (HPI)	None within application site. Hedgerows approx. 100m from application site bordering Rowley Green Meadow. Deciduous woodland Priority Habitat at above SINC. Potential impact from introduction of seed sources or management changes.	No direct impact on existing HPI. Only native locally-occurring species used within planting. Creation of new native species hedgerow which will be managed as wildlife habitat.	No likely significant impact on existing HPI. Positive impact through creation of new 350m native species hedgerow.
Habitats in application site.	Application site currently has modified grassland and two semi-mature trees. Approx. 3210 m ² of modified grassland will be lost and replaced with high quality wildlife ponds and associated wetland vegetation. Another approx. 1,200 m ² of modified grassland will be replaced with native, locally occurring trees, and a	The existing trees will be retained, and their root zones will be protected during the construction phase using temporary fencing. Approx. 1300 m ² of modified grassland will be retained in Rowley Green Meadow directly adjacent to the application area, and will be managed appropriately as set out in the Management Plan. Modified grassland	Increase in range and quality of habitats on site.

	further approx. 900 m ² will be allowed to develop scrub.	occurs widely throughout Stoke Park Farm due to historical use as an intensive dairy farm.	
Amphibians	GCN eDNA surveys of waterbodies at Stoke Park Farm are negative. Application site currently unsuitable for amphibians, but within the Strategic Opportunity Area for GCN. GCN are present within 700m, and other amphibians are present within 500m.	No holes or other cover for amphibians have been identified in the application site. Any individuals using the site are likely to move away from disturbance. NCP staff will walk the site immediately prior to work starting and if any amphibians are found at this stage or during construction, work will be halted while animals are moved to safe, suitable adjacent habitat. This will be detailed in a method statement and 'Toolbox Talk' for everyone working on site.	No impact on amphibians from the construction phase. Positive impact of project through creation of new high quality habitat for breeding and foraging amphibians (including protected species).
Badger	No badger setts within 30m of application site. Badgers likely to use application site for foraging and could enter excavation or have foraging routes disrupted by fencing.	Any excavations left overnight will be gently ramped to allow exit. No night working will take place. New stock fence will incorporate low gaps at suitable intervals to allow badgers to pass through.	No impact on badgers from the construction phase. Improved foraging habitat and cover for badgers through habitat creation.
Bats	Will be using site for foraging and may use adjacent trees for roosting.	No tree works to take place, and existing trees will have root zone protection during works. No night working will take place.	No impact on bats from the construction phase. Improved foraging for bats through habitat creation.
Birds	Loss of modified grassland hunting / foraging area. Potential for ground nesting birds to nest at or adjacent to application site and be disturbed by the construction phase. Potential for schedule 1 birds to nest nearby and be disturbed by the construction phase.	High quality wetland, scrub, hedge and woodland habitat is being created, which will provide foraging and nesting opportunities for a wide range of species. Modified grassland is being retained adjacent to the application site and is extensive within Stoke Park Farm.	No impact on breeding birds in the construction phase. Improved foraging and nesting habitat for a wide range of bird species.

		A suitably experienced ornithologist will inspect the site prior to any works in the bird breeding season to check for the presence of ground nesting birds or schedule 1 birds, and work will be delayed if a risk of disturbance is identified.	
Fish	Sediment or pollutants entering the Bow Lake, from the drain system or during the construction phase.	Pollution control measures will avoid pollutants or sediments entering the Bow Lake.	No impact on fish during construction phase. Blocking drains and creating ponds within Rowley Green Meadow may reduce sediment and nutrient pollutant inputs to the Bow Lake over time.
Hazel dormouse	No potential impact pathways identified.	No mitigation required.	No impact on Hazel dormouse.
Hedgehog	Hedgehogs may use application site for foraging and could enter excavations.	Any excavations left overnight will be gently ramped to allow exit. No night working will take place.	No impact on hedgehogs from the construction phase. Improved foraging habitat and cover for hedgehogs through habitat creation.
Invasive Non-Native Species	Seeds or other material brought on site by construction vehicles. Tree and hedge planting.	Vehicles to be brought on site in a clean condition to reduce chance of spread of INNS. Agreed native species only to be used in planting. Ponds will not be planted, and will be allowed to colonise naturally, this removes the chance of accidental introductions in plant material.	No impact on INNS
Invertebrates	Site currently of low to moderate value for invertebrates and unlikely to support rare or notable species. Individuals of non-mobile species may be killed during construction phase and habitat creation	Modified grassland is being retained adjacent to the application site allowing mobile species to move. Habitat creation will provide suitable conditions for a much wider range of species over time.	No significant impact on invertebrates in the construction phase. Increase in suitable habitat for a wide range of invertebrates, including rare and notable species.

	will reduce amount of modified grassland available.		
Otter	Otter may use nearby Bow Lake for movement and foraging, and may enter excavations.	Any excavations left overnight will be gently ramped to allow exit. No night working will take place. New stock fence will incorporate low gaps at suitable intervals to allow otters to pass through.	No impact on otter from the construction phase. Increased hunting and foraging opportunities from habitat creation.
Plants	Loss of approx. 3210m ² of modified grassland for ponds. Loss of approx. 1,200m ² of modified grassland for tree planting. Loss of approx. 900m ² of modified grassland to scrub.	Extensive areas of modified grassland remain adjacent to the application site and within Stoke Park Farm. Planting of new native trees and hedges. Allowing scrub to develop naturally. New wetland areas with plants allowed to colonise naturally.	No significant impact on plants from the construction phase. Greatly increased diversity of plant life from habitat creation and management.
Reptiles	Whilst reptiles are not known on the site, they may be present in the construction area and could be injured or killed by construction vehicles.	No holes or other cover for reptiles have been identified in the application site. Any individuals using the site are likely to move away from disturbance. NCP staff will walk the site immediately prior to work starting and if any reptiles are found at this stage or during construction, work will be halted while animals are moved to safe, suitable adjacent habitat. This will be detailed in a method statement and 'Toolbox Talk' for everyone working on site.	No impact on reptiles from the construction phase. Increase in suitable cover and foraging for grass snake, adder, slow worm and common lizard from habitat creation and management.
Water vole	Water vole may use nearby Bow Lake for dispersal, and may enter excavations.	Any excavations left overnight will be gently ramped to allow exit.	No impact on Water vole from the construction phase. The two proposed ponds nearest the Bow Lake have been designed to be suitable for Water vole to burrow and feed, increasing the amount of suitable habitat in the area.

8. Other potential impacts, avoidance and mitigation

8.1 Hydrology

8.1.1 The new ponds will be surface and rain fed. The clay substrate will enable the water to be retained without the use of liners. The new ponds are small in size and located on lower ground so are unlikely to induce any significant changes to the hydrology of the wider area. Rainwater will be retained for longer before entering the Bow Lake stream. Blocking and partial removal of drains around the new ponds will also help to restore natural hydrological processes.

8.2 Carbon

8.2.1 The Carbon footprint of the project will be negligible due to the scale and length of the works. However, soil disturbance and use of machinery during the Works will release an unquantified amount of carbon.

8.2.2 Over time as vegetation and wetland fauna establish at the new ponds, carbon capture will be as if not more effective than when the land was permanent grassland. In a 2021 Natural England report, available here: <https://publications.naturalengland.org.uk/publication/5419124441481216>

Carbon Storage and Sequestration by Habitat 2021 - NERR094 (naturalengland.org.uk) the authors state that ponds, if well managed, could be carbon sinks and could have high carbon burial rates. Creating new ponds and restoring those neglected could help sequester more carbon and be readily integrated with other land uses.

8.2.3 The new hedgerows and trees will also capture carbon over time.

8.3 Soils

8.3.1 Machinery access for the pond creation is mainly along existing compacted or surfaced tracks.

8.3.2 Machinery access will cause some disturbance to the ground around the pond creation area, and when moving spoil.

8.3.3 Work will be planned for when the ground conditions are relatively dry to avoid excessive damage to the soils.

8.3.4 The access track will be made good after completion of the work - which is expected to take between two and three weeks to complete.

8.3.5 During the works, the machine tracks may create shallow wet depressions in the field. These are an important and desirable habitat and a natural by-product of the pond creation. Some areas of disturbed ground and rutting within the pond creation area will be retained after the work is complete as this can create enhance habitat heterogeneity and opportunities for mud plants and semi-aquatic invertebrates.

8.3.6 Some disturbed ground will be smoothed and left to revegetate naturally. The spoil spread areas will be seeded with a suitable wildflower mix to be agreed with the EBC Ecology and Trees Manager.

8.4 Landscape

8.4.1 The project will be visible to the public from the bridleway to the west of the application area. Gateways and low points will be created in the new fenceline and hedge to allow people to enjoy the views.

8.4.2 Spoil produced by excavating the ponds will be used on site. Low bunds will be created to retain water in ponds 1-5, using the topography to minimise height and landscaped to merge with the existing slope. Topsoils will be used to create a low bank along the western boundary of the site, in which the hedge will be planted in the autumn /winter season following pond creation. Other spoil will be spread thinly and seeded, where it will break down and not become a visual feature.

8.4.3 The proposed ponds and terrestrial planting will become visually attractive and will retain the character of 'pasture and arable fields with typically small copses' described in the Itchen Valley Character Area of the Hampshire County Council Integrated Character Assessment. The proposal does not threaten any of the key qualities of the character area.

9. Ecological enhancements

9.1 Biodiversity

8.1.1 The project will create:

- Seven new high quality, clean water wildlife ponds, with vegetation allowed to colonise naturally from local sources.
- Approximately 350 m of new native species hedge.
- Approximately 1,200 m² of new native trees.
- Approximately 900 m² of rough grassland and naturally developed scrub.
- 2-3 Hibernacula suitable for amphibians to shelter and hibernate.

8.1.2 Long term management of the site is secured for at least 25 years through a Management Agreement between EBC and NCP. This includes a Management Plan and provision for agreed annual payments from NCP to EBC to cover the management costs.

9.2 Monitoring

9.2.1 NCP will monitor the ponds annually to ensure that they reach a Habitat Suitability Index (HSI) for GCN score of at least 0.7 within the first five years. NCP will also carry out GCN eDNA surveys annually for five years, and any terrestrial habitat monitoring detailed in the Management Agreement and Management Plan. The Management Plan will be updated every five years by mutual agreement between NCP and EBC.

10. Conclusion

10.1 The project will result in the loss of around 5,310 m² of heavily modified, low diversity grassland within the application site. It will be replaced by around 3210 m² of high quality wildlife

ponds, 1,200 m² of planted native trees and 900 m² of naturally developed scrub. There will also be a new 350m native hedge.

10.2 No protected or notable species will be negatively impacted by the project.

10.3 No designated sites will be impacted by the project.

10.4 Protected species including GCN and bats will benefit from the project.

11. List of documents and legislation referred to in report or used for background information

ECUS Ltd (2023). P35 Stoke Park Farm – Preliminary Ecological Appraisal. ECUS: Basingstoke.

Burton Reid Associates (2023) Stoke Park Farm SANG Ecological Impact Assessment BR0813 for Eastleigh Borough Council. Burton Reid Associates.

Burton Reid Associates (2023) Bird Hazard Assessment and Management Plan Stoke Park Farm SANG For Eastleigh Borough Council Doc Ref: BR0813. Burton Reid Associates.

CIEEM (2017). Guidelines for Ecological Report Writing. CIEEM: Winchester

Department for Communities and Local Government (2021) National Planning Policy Framework (NPPF). DCLG. Can be found here: <http://www.legislation.gov.uk/ukpga/2006/16/contents>

Natural Environment and Rural Communities (NERC) Act 2006 can be found here: [Natural Environment and Rural Communities Act 2006 \(legislation.gov.uk\)](http://www.legislation.gov.uk/ukpga/2006/16/contents)

The DEFRA MAGIC mapping tool (www.magic.gov.uk)

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

Red list (IUCN 2001) can be found here: [IUCN Red List of Threatened Species](http://www.iucn.org/redlist)

Carbon Storage and Sequestration by Habitat 2021 - NERR094 (naturalengland.org.uk) is available here: <https://publications.naturalengland.org.uk/publication/5419124441481216>

Hampshire County Council Integrated Character Assessment can be found here: [Hampshire Integrated Character Assessment | Hampshire County Council \(hants.gov.uk\)](http://hants.gov.uk/integrated-character-assessment)

Eastleigh Borough Council Local Plan 2016-2036 can be found here: <https://www.eastleigh.gov.uk/planning-and-building/planning-policy-and-implementation/planning-policy-guidance/supplementary-planning-documents>

HBIC website [Microsoft Word - Criteria for selecting Sites of Importance for Nature Cons... \(hants.gov.uk\)](http://hants.gov.uk/microsoft-word-criteria-for-selecting-sites-of-importance-for-nature-conservation)

HBIC website [Microsoft Word - Mapping the Hampshire Ecological Network Updated March 2020 \(hants.gov.uk\)](http://hants.gov.uk/microsoft-word-mapping-the-hampshire-ecological-network-updated-march-2020)

JNCC website [UK BAP Priority Species | JNCC - Adviser to Government on Nature Conservation https://hantsplants.uk/assets/documents/hrpr/Consolidated%20Hants%20list.p](http://hantsplants.uk/assets/documents/hrpr/Consolidated%20Hants%20list.p)

Species Records Credits

HBIC data provided to the Project contains data supplied by the following Recording Groups and Organisations for which the authors are grateful to.

- [Bees, Wasps, and Ants Recording Society \(BWARS\) pre 2014](#)
- [Botanical Society of Britain and Ireland \(BSBI\)](#)
- [British Bryological Society \(Mosses, Liverworts, Hornworts\)](#)
- [British Dragonfly Society \(BDS\)](#)
- [British Lichen Society \(BLS\)](#)
- Butterfly Conservation (BC)
- Hampshire Bat Group (HBG)
- Data administered by the Hampshire and Isle of Wight Wildlife Trust on behalf of:
 - Hampshire Amphibian and Reptile Recording Network (HARRN)
 - Hampshire Mammal Group (HMG)
- Independent Hampshire Entomologist's records
- Spider and Fungi records gleaned from collections housed and curated by the Hampshire Cultural Trust (HCT)