

# LAND OFF WEST MOOR CROFT ROAD, GOLDTHORPE (PHASE 3)

**Further Supplementary Ecological Information (SEI) including  
Revised Biodiversity Net Gain (BNG) assessment of land  
within New Park Springs**

Prepared for Gleeson Homes Limited

SLR Ref: 424.03044.00237  
Version No: 1  
August 2022



Document Control	
Organisation	SLR Consulting
Project Name	Land off Moor Croft Road, Goldthorpe (Phase 3)
Report Title	Further Supplementary Ecological Information (SEI)
Author(s)	Gary Oliver, Principal Ecologist SLR Consulting

## BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Gleeson Homes (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment. SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty. Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid. The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise. This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it. Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

## CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>3</b>
<b>2.0</b>	<b>RESULTS OF SUPPLEMENTARY DESK STUDY</b> .....	<b>6</b>
2.1	Data from the South Yorkshire Bat Group .....	6
2.2	Data from the South Yorkshire Badger Group .....	6
<b>3.0</b>	<b>REVISED BIODIVERSITY NET GAIN CALCULATION</b> .....	<b>6</b>
3.1	Pre and Post-Development Value of the Site .....	6
3.2	Biodiversity Off-Setting with New Park Springs.....	7
3.2.1	Orchid Receptor Areas.....	7
3.2.2	Scrub Planting within Grassland (Habitat Enhancement) .....	8
3.2.3	Conifer Clearance and Scrub Planting (Habitat Creation).....	12
<b>4.0</b>	<b>RESULTS OF PROTECTED SPECIES SURVEYS</b> .....	<b>13</b>
4.1	Results of 2021 Bat Surveys .....	13
4.2	Results of Water Vole Survey of Flat Moor Dyke .....	14
4.3	Results of Great Crested Newt eDNA Surveys.....	14

## DRAWINGS

Drawing 1: Proposed Ecological Enhancements to New Park Springs (managed by TCV)

## APPENDICES

Appendix 1: Desk Study Data Received from the South Yorkshire Bat Group (supplied separately)

Appendix 2: Desk Study Data Received from the South Yorkshire Badger Group

Appendix 3: Metric 3.1 BNG Assessment (supplied separately in Excel format)

## 1.0 INTRODUCTION

SLR Consulting Ltd was commissioned by Gleeson Homes Ltd to provide Supplementary Ecological Information (SEI) for a proposed development to the west of Moor Croft Road, Goldthorpe, South Yorkshire (central OS grid reference SE 46570369), hereafter known as the 'Site'.

An SEI report was produced by SLR Consulting in June 2022<sup>1</sup>, and this was subsequently reviewed and commented on by Ms Katie Lawrence, Planning Ecologist with Barnsley Council, in an email dated 30<sup>th</sup> June 2022.

The comments from Ms Lawrence are summarised below:

### SEI report

- *Within the consultation response provided by Wildscapes (dated 19.04.2021) for the first iteration of the application, it was recommended that the hedgerows on site be subject to a Hedgerow Regulations Survey 1997 to assess if they meet criteria to be deemed as 'important'. Correspondence held between myself and the applicants ecologist sent on the 10<sup>th</sup> March 2022 advised that none of the hedgerows on site meet such criteria. This information should be included within the SEI report.*
- *Within Wildscapes consultation response they noted that no consultation had taken place with the South Yorkshire Bat Group and badger group and advised data was obtained to support the assessment. This has not been done. Data should be sort from these groups and the SEI report updated accordingly.*

### Biodiversity Net Gain Assessment

- *Section 2.1 of the SEI states that pre-development site has a value of 11.78 biodiversity units, though the table below states 11.68. The BNG metric states 11.68, with the area and condition of the habitats set within the table matching what has been input into the metric, so it is understood that 11.68 is the correct value.*
- *Section 2.1.1 - table states that hedgerow 5 (H5) is unchanged in length but is greater by 5 metres in comparison with the H5 length stated in the pre-development hedgerow table. This should be confirmed and amended accordingly.*
- *Existing hedgerows on site have been input into the metric twice, once as an area habitat (mixed scrub) and then as a linear habitat. Existing hedgerows should only be included as a linear habitat within the B1 site hedge baseline tab. The reduction in area from removing mixed scrub habitat from the site habitat baseline should be made up by increasing areas for the habitats that the existing hedgerows oversail, such as bramble scrub and other neutral grassland.*
- *New hedgerow planting on-site, which is detailed within the table in section 2.1.1 of the report and as shown on the detailed landscape proposals plans should be included in the B2 hedgerow creation tab as a linear habitat rather than as an area of mixed scrub within the site habitat creation tab. The reduction in area within the site habitat creation tab should be made up by increasing areas of the habitats the new hedgerow planting would oversail, such as vegetated garden. The second table within section 2.1.1 should be amended to remove mixed scrub habitats which includes the area of retained and proposed new sections of hedgerow. New hedgerow planting proposed on-site may have been added to the off-site hedge creation tab, rather than the on-site tab. This should be amended. New sections of proposed hedgerow planting on-site, which are to include seven native species are likely to be deemed as native species-rich hedgerow (where species-rich hedgerows are defined as those with a 30m section which include at least five [or at least four in northern and eastern England, upland Wales and Scotland] woody species that are either native somewhere in the UK, or which are archeophytes – Hedgerow Survey Handbook, 2007). When adding 138m (0.138km) of native species-rich hedgerow of a moderate condition (as anticipated for the mixed scrub habitat within*

<sup>1</sup> SLR Consulting (June 2022). SEI including revised BNG of New Park Springs v1 (SLR ref 424.03044.00237)

the site habitat creation tab and hedgerows within the off-site hedge creation tab), within an area of strategic significance and temporal multipliers set to 0, this gives an increase of 1.06 hedgerow units. The metric submitted indicates no change in hedgerow units with current hedgerows on site to be retained and new hedgerow planting not added as linear measurements.

- In regards to the two points above, reference should be made to paragraphs 2.6-2.8 of the Biodiversity Metric 3.0 User Guide on the difference between area and linear habitats in the metric.
- I have undertaken a visit to site within June 2022 and noted the habitats to be representative of those shown on Drawing 1 (Extended Phase 1 Habitat Survey) included within the ecology report. The habitats listed within the site habitat baseline tab of the metric include bramble scrub and other neutral grassland, which is present; however, tall ruderal habitat was noted as prevalent on the site, particularly towards the south. Consideration should be given to the amendment of the baseline habitats within the metric to include the tall ruderal habitats present (Sparsely vegetated land – Ruderal/Ephemeral) and a condition assessment of these habitats carried out using condition assessment sheet 21 Urban within the Biodiversity Metric 3.0 Technical Supplement.
- There is a discrepancy in the total areas of the site pre and post-development. When measuring the total site area on MAGIC, the area of 2.15 hectares as stated within the site baseline tab appears accurate; however the area within the site creation tab totals 1.93 hectares. With the addition of the retained mixed scrub (which should be removed, as set out within my third bullet point under BNG comments) this equals 2.04 hectares. The area input for urban trees (0.11) does not contribute to the total area (refer to section 7 of the Biodiversity Metric 3.0 User Guide, particularly paragraph 7.13), therefore habitats which the proposed trees will oversail, should be increased. The metric has a check areas error message. Amendment of the metric is required so that the pre and post development areas are equal.
- It is noted within the on-site and off-site habitat creation/enhancement tabs of the metric that the temporal multipliers have largely been left blank. These should be set at 0 unless habitats are to be created/enhanced in advance or significantly delayed. Reference should be made to paragraphs 4.68-4.77 of the Biodiversity Metric 3.0 User Guide on how to complete this part of the metric.
- Further detail should be included as to how the condition assessments for baseline habitats (on and off-site) have been determined (where applicable). This would ideally be set out in a tabular format as per the condition assessment sheets within the Biodiversity Metric 3.0 Technical Supplement, indicating which condition assessment criteria have been failed/passed. Such information should also be provided for the created/enhanced habitats indicating which condition assessment criteria are anticipated to be passed/failed.
- Within the off-site habitat baseline tab, it is set out that areas of other coniferous woodland (0.49 ha) and other neutral grassland (0.412 ha) will be enhanced by converting these habitats to mixed scrub. As the proposed works represent a change in broad habitat types this would generally be considered as habitat creation rather than enhancement, therefore off-site baseline habitats should be assumed as lost and the replacement habitat added to the D2 off-site habitat creation tab. Refer to paragraph 4.84 and Box 5-3 of the Biodiversity Metric 3.0 User Guide.
- It is noted within the off-site habitat enhancement tab of the metric that other neutral grassland recorded within the baseline will be enhanced to other lowland acid grassland habitat. As the baseline habitat is other neutral, it is unclear how this will be changed to acid grassland. Further justification of this should be provided within the report or the habitat type should be changed to other neutral grassland of a higher condition.
- The trading rules of the metric have not been satisfied and this relates to the loss of medium distinctiveness habitats including bramble scrub and other neutral grassland, with habitat creation and enhancement measures proposed not fully compensating for these. I am not overly concerned by the loss of bramble scrub as this had been assessed as being of low condition; however, the trading summary indicates quite a loss of

*other neutral grassland. Consideration should be given to the alteration of off-site habitat enhancement measures proposed, to include further areas of enhanced other neutral grassland in the place of mixed scrub planting and locating such enhancement in association with the orchid translocation areas to provide larger enhanced areas.*

- *Within section 2.1.2 of the report it advises that the translocation of orchids will improve the condition of the existing grassland habitats from poor to good condition. Appropriate management of the grasslands are also likely to be required in addition to the translocation of orchids (which may not be successful) in order to achieve this change in condition. Is enhanced management in these areas proposed and, if so brief detail of this should be included within the report, as well as the condition assessment criteria anticipated to be passed/failed (as set out above). More detailed management information can be provided within a Biodiversity Enhancement Management Plan which would be required as a planning condition.*

#### *Protected Species Surveys*

- *Section 2.3 of the report provides a summary of bat transect surveys undertaken on site during the spring and summer of 2021. These surveys supplement those undertaken within August and September 2020 and are welcomed to give an indication of the use of the site by commuting and foraging bats. Further detail regarding these surveys is required, including dates of survey, equipment used, the use of static detectors and length left out on site, full list of species recorded, etc., similar to that set out within the Ecological Impact Assessment submitted for this application.*
- *Section 2.4 of the report provides a summary of a water vole survey undertaken in 2021. Again, more detail should be provided in regards to this survey, including dates of the survey, the extent of the survey, etc.*
- *Section 2.5 of the report provides a summary of updated eDNA surveys, which were undertaken within Spring 2021 and the results of the water sample analysis are provided in the appendices. This is welcomed, in that the surveys appear to have been carried out within the appropriate season; however, the report should be amended to include the date of the survey.*

#### *Landscape proposals*

- *The landscape proposals show retained hedgerows on site. The metric details that all lengths of hedgerow will be retained on site; however Detailed Landscape Proposal (2 of 2) drawing no. 3627/3 appears to show a section of hedgerow to the north-western corner of the site to be removed. This should be confirmed and if proposed for removal, the metric should be amended accordingly.*
- *The landscape proposals appear to show that the hedgerow to the western boundary of the site will be beyond the curtilage of proposed gardens; this is welcomed. Confirmation should be provided as to whether the retained hedgerows to the remaining boundaries will also be outwith the curtilage of gardens; this would be in line with the policy for the site which includes the retention, enhancement and management of the hedgerows.*
- *The landscape proposals submitted do not detail what is proposed within the space to the south-west corner of the site. Consideration should be given to wildflower seeding within this area, which would have an effect of the BNG calculation, assist with satisfying the trading rules and partially mitigate the loss of existing marshy grassland habitat on site.*

#### *Natural England consultation*

- *Natural England were consulted on the planning application in regards to potential impacts upon the parcel of Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) approximately 0.4km to the south of the proposals site. Their response advised that they have no comment in regards to the application. No adverse impact upon the SSSI is therefore anticipated as a result of the proposals.*

This 'further SEI report' seeks to address the points raised by Ms Lawrence.

## 2.0 RESULTS OF SUPPLEMENTARY DESK STUDY

### 2.1 Data from the South Yorkshire Bat Group

Information for the Site and 2km radius was obtained from the South Yorkshire Bat Group on the 18<sup>th</sup> of July 2022 (Appendix 1).

From this it may be seen that 38 bat records were provided, involving at least five species of bat, namely common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's bat (*Myotis daubentonii*), Leisler's bat (*Nyctalus leisleri*), and noctule (*Nyctalus noctula*), along with *Myotis* sp. and 'unidentified bat'.

The records date from between 1993 and 2020, and relate to a mixture of foraging bats, dusk/ dawn bat surveys and bat care call outs. Most of the records are for single bats or small numbers, although several old (dating from 1993) records were provided for an apparent pipistrelle sp. maternity roost at Turnesc Grove, Thurnscoe (SE457051), located approximately 1.4km to the north-west of the Site.

None of the bat records appear to relate to the Site itself, or its immediate environs.

### 2.2 Data from the South Yorkshire Badger Group

Information for the Site and 1km radius was obtained from the South Yorkshire Badger Group on the 18<sup>th</sup> of July 2022. Correspondence from Mr Graham Shepherd, Chair, confirmed that the badger group do not hold any relevant records (Appendix 2).

## 3.0 REVISED BIODIVERSITY NET GAIN CALCULATION

### 3.1 Pre and Post-Development Value of the Site

The comments received from Ms Lawrence on the earlier version of the BNG metric, made using Metric 3.0, are noted, and a revised metric has been attached (Appendix 3).

In particular, the following should be noted in terms of the baseline.

- The revised calculation has been made using Metric 3.1, rather than Metric 3.0;
- It is confirmed that the Site has a footprint of 2.15ha;
- The physical footprint of the hedgerows has been removed from baseline (treated as linear habitat only);
- The mosaic of habitats present comprises: 'sparsely vegetated ground – ruderal/ ephemeral (1ha); bramble scrub (0.4ha); other neutral grassland - poor semi-improved grassland (0.5ha), other neutral grassland – species-rich semi-improved grassland; and other neutral grassland – marshy grassland (0.14ha).
- The bramble scrub has poor condition (this is an embedded assumption, in the spreadsheet);
- The tall ruderal (sparsely vegetated ground) component meets the following criteria, as described within the Metric 3.1 Technical Supplement: relatively varied structure, relatively diverse range of flowering plants and invasive non-natives cover less than 5%. Based on this it is assessed as having 'fairly good' condition.
- The other neutral grassland (poor semi-improved grassland) is assessed as meeting the following criteria: cover of bare ground is between 1-5%; cover of bracken is less than 20% and that of scrub is less than 5%; and there is an absence of Schedule 9 invasive species. However, wildflowers, sedges and indicator species

are not clearly and easily visible throughout the sward, sward height is not varied (but rather the grassland is consistently tall and unmanaged), and there are fewer than nine species/ m<sup>2</sup>. Given that the vegetation is tall, with a structure that is likely to provide shelter for invertebrates, which in turn provide food for bats and foraging birds and other wildlife, the condition has been assessed as ‘fairly poor’ rather than ‘poor’;

- The other neutral grassland – good semi-improved grassland, which occurs in a broken line down the ‘spine’ of the Site, is assessed to meet the following criteria in addition to the criteria met by the poor semi-improved grassland, as described above: it contains species that are characteristic of the grassy type. It is therefore adjudged to meet four of the criteria, which equates to ‘moderate’ condition; and
- The other neutral grassland – marshy grassland, which occurs in the southern part of the Site, is assessed to meet the following criteria in addition to the criteria met by the good semi-improved grassland, as described above: likely to have (on average) more than nine species/m<sup>2</sup>. It is therefore assessed as having ‘good’ condition, based on the information contained within the Metric 3.1 Technical Supplement, and professional judgement.

Based on the above, the Site is assessed as having a baseline value of 12.16 biodiversity units.

In terms of hedgerow units, the revised metric remains unchanged from the earlier version; supporting a baseline of 2.45 baseline hedgerow units.

In terms of the post-developed state, the following should be noted:

- The gardens are relatively large, and are estimated to account of 45% of the overall site area, with sealed surface accounting for the remaining 55%. Based on this, and allowing for the introduction of an estimated 0.11ha of ‘urban trees’ in moderate condition the post-development site is estimated to have a value of 2.20 biodiversity units.

In terms of the hedgerows, in its post-developed state the following hedgerows are due to be extended: Hedgerow H1 by 16m; Hedgerow H2 by 70m, and Hedgerow H3 by 40m, as stated by Ms Lawrence the new areas of hedgerow shall be classified as ‘native species rich hedgerow’. The resulting overall BNG will generate a predicted hedgerow unit increase of 34.4%.

In terms of the main calculation, as stated above, the Site supports 12.16 biodiversity units pre-developed, and is predicted to support 2.45 units post-development, a shortfall of 9.71 biodiversity units. This shall be off-set within New Park Springs, as described below.

## 3.2 Biodiversity Off-Setting with New Park Springs

### 3.2.1 Orchid Receptor Areas

A number of orchid receptor sites were selected, as summarised below:

Orchid Receptor Area 1 lies at OS grid reference SE 41468 07781, and measures 0.17ha in extent (Plate 1). It currently comprises a damp grassy slope, temporarily fed by a blockage within a ditch which forces runoff to overflow a footpath and seep down the adjacent slope (Plate 2). This shall be ‘formalised’ and made more permanent by hard-blocking the ditch at this point and taking the water through a pipe, beneath the footpath, allowing it to seep down the slope in the same way as it does at present, but allowing the path to remain dry and be fully accessible, as well as delivering a more permanent supply of water to the orchis, ensuring that the ground

remains damp and highly suitable. A total of 100 marsh orchids shall be placed within Receptor Area 1.

Orchid Receptor Area 2 is centred at OS grid reference SE 41189 07908, and measures 0.05ha in extent (Plate 3). It is positioned at a bend in the path relatively close to one of the main entrance points into New Park Springs, making it visible by users of the park, from both directions. It is recommended that the common spotted orchids are placed here.

Orchid Receptor Area 3 is centred at OS grid reference SE 41364 07942 and measures 0.12ha (Plate 4). This area contains a small ditch which flows west, into the adjacent quarry. A small bund shall be created at the western end of the ditch, causing ground water levels to the east to rise, making the area more suitable for marsh orchids; 75 marsh orchids shall be placed here.

Orchid Receptor Area 4 consists of a 2 metres wide x 180 metre long damp/ wet channel on relatively flat ground, centred at OS grid reference SE 41483 07582 (Plate 5), as well as a shallow depression that extends in a south-westerly direction from the northern end of this ditch (Plate 6). This 0.036ha channel shall receive the remainder of the march orchids, expected to be approximately 75 spikes, based on 2021 count.

The preparation works to Receptor Sites 1 and 3 shall be carried out during the autumn/ winter of 2022 or early spring of 2023, and the orchid spikes themselves shall be transferred during the spring of 2023. No preparation works are associated with Receptor Area 4.

All of the areas of grassland to be enhanced by the introduction of the orchids are relatively species-poor areas of 'other neutral grassland'. Receptor Areas 1 and 4 have a relatively sparse vegetation cover (>10% bare ground) and have been assessed as being in 'poor' condition. Receptor Areas 2 and 3 are less patchy; they have been assessed as being in 'moderate' condition; a departure from the original calculation which assessed as orchid receptor areas as having poor condition.

All orchid receptor areas shall be subject to appropriate management, and monitoring, following their translocation. An appropriate management plan shall be written in collaboration with the Land Trust. An annual 'orchid count' shall be undertaken and steps taken to alter management in areas where the orchids are not performing well, based on conditions that are prevailing in areas where the orchids are performing better. Corrective measures may involve strimming in the autumn/ ground disturbance in the winter, to create a more open sward and increase available bare ground, to allow orchid seeds to more readily germinate, if necessary.

In terms of the BNG calculation it is assumed that all four orchid receptor areas shall attain 'good' condition, increasing the value of the four orchid receptor areas from a baseline of 2.18 biodiversity units, to 3.63 biodiversity units, an increase of 1.45 biodiversity units.

### 3.2.2 Scrub Planting within Grassland (Habitat Enhancement)

In addition to the orchid receptor areas, a number of small areas of grassland shall be enhanced by the planting species-rich mixed scrub, as described within the earlier SEI report<sup>2</sup>. These grassland areas were selected for enhancement by Mr Ian Kendall, of the Land Trust., as they essentially extend existing scrubby areas.

<sup>2</sup> SLR Consulting (June 2022). SEI including revised BNG of New Park Springs v1 (SLR ref 424.03044.00237)



Plate 1: View of Orchid Receptor Area 1 (0.17ha), due to receive 100 marsh orchids.



Plate 2: View of overflow feeding Orchid Receptor Area 1 (0.17ha), due to be 'formalised' and made permanent.



Plate 3: View of Receptor Area 2 (to the right of the footpath), due to receive common spotted orchids.



Plate 4: View of Receptor Area 3 (0.12ha), due to receive 75 marsh orchids.



Plate 5: Receptor Area 4, a 180 metre long ditch on fairly level ground, due to receive circa 75 marsh orchids.



Plate 6: Shallow depression extending from the northern end of the ditch pictured above, in a south-easterly direction (to also receive some of the estimated 75 marsh orchids)

Scrub Planting Area 1 is located close to the main entrance off Claypole Road at OS grid reference SE 40871 08123, measuring 950 metres x 10 metres (0.095ha). Here the planting shall comprise hawthorn, blackthorn, dog rose (*Rosa canina*), hazel, guelder rose and elder (*Sambucus nigra*); planting shall take place at relatively low density, at 3m centres.

A further 0.13ha area of scrub planting shall take place at the extreme south-eastern end of the reserve (at OS grid reference SE 41668 07371). Scrub planting here shall comprise hawthorn, blackthorn, and dog rose, which shall be planted at a higher density (1.5m centres) to create a dense, thorny habitat.

Scrub Planting Area 3 (0.1 ha, located at OS grid reference SE 41145 07768), and Scrub Planting Area 4 (0.087ha, located at OS grid reference SE 41388 07619) shall be planted with the same species mix, and at the same density, as Scrub Planting Area 1.

In total, these areas shall provide 0.412ha of additional scrub planting within areas of grassland that are not species-rich and of relatively uniform height, being classified as being of 'poor' condition. Ongoing maintenance shall essentially comprise 'non-intervention management'; scrub simply being left to develop and mature, however, an annual inspection shall be carried out in each of the first five years and any failed stock shall be replaced on a like-for-like basis.

Comments received from Ms Lawrence raise the question of whether this scrub planting should be classed as habitat 'creation' or habitat 'enhancement', given that they score differently within Metric 3.1. After considering this is considered that this is legitimate habitat enhancement, as the scrub would be planted with little or no damage to the grassland beneath, and would develop over several years, leading to a gradual transition from one habitat type to another, more valuable, habitat.

The enhancement of grassland to scrub, in this way, would generate a further 4.12 biodiversity units.

### 3.2.3 Conifer Clearance and Scrub Planting (Habitat Creation)

The orchid receptor areas and the scrub planting within areas of grassland would, together, deliver, 5.57 biodiversity units of the 9.71 biodiversity unit deficit.

The remaining biodiversity units, required to off-set the shortfall, would be achieved by clearing an area of relatively dense but young coniferous woodland in 'poor' condition, and replacing this with mixed, native species-rich scrub. Having considered this further, it is accepted that this comprises habitat 'creation', rather than habitat 'enhancement', and Metric 3.1 has been completed to reflect this.

This will require the removal of 0.75ha of coniferous woodland, centred at OS grid reference SE 41215 07633, rather than the 0.49ha earmarked for removal in the previous metric calculation. The mixed scrub shall comprise the same species mix as proposed above for Scrub Planting Areas 1, 3 and 4, but with the addition of pedunculate oak (*Quercus robur*), which shall comprise 10% of the mix. Planting shall take place at 3m centres.

Any existing broad-leaved trees that may be scattered within this 0.75ha conifer block shall be retained. The smaller branches and needles from the felled conifer trees would be chipped on site, whereas the larger sections of log would be used to create log piles, some with voids in their centre with access points at ground level. These log piles would be suitable for invertebrates and provide refuges for species such as hedgehog.

Ongoing maintenance shall essentially comprise ‘non-intervention management’; scrub simply being left to develop and mature, however, an annual inspection shall be carried out in each of the first five years and any failed stock shall be replaced on a like-for-like basis.

Overall, these enhancements and areas of habitat creation, shall yield an overall BNG of 3.44% (refer to the Metric 3.1 spreadsheet provided as Appendix 3).

All of these enhancements/ area of habitat creation are illustrated in Drawing 1.

## 4.0 RESULTS OF PROTECTED SPECIES SURVEYS

### 4.1 Results of 2021 Bat Surveys

Static bat detectors (Expresses) were deployed at four locations during May and August 2021, as follows:

- Location A - middle of western Site boundary (SE 46531 03696);
- Location B - middle of eastern Site boundary (SE 46591 03664);
- Location C - within marshy grassland in the south of the Site (SE46536 03613); and
- Location D – within central northern part of the Site (SE 46583 03820).

On each occasion the statics were deployed for five consecutive nights, specifically 27<sup>th</sup> to 31<sup>st</sup> of May, and 2<sup>nd</sup> to 6<sup>th</sup> August, inclusive.

The results of the surveys are set out in the tables below:

Results of May 2021 Static Bat Detector Surveys

Location	Bat Passes per hour (average)			
	Myotis sp.	Noc	Com pip	Sop pip
A	0.10	3.19	1.67	2.44
B	0.53	7.23	2.63	1.81
C	0.00	10.96	11.84	0.00
D	Detector failed at Location D			

Results of August 2021 Static Bat Detector Surveys

Location	Bat Passes per hour (average)		
	Noc	Com pip	Sop pip
A	0.38	0.07	0.24
B	0.33	0.96	0.24
C	0.49	0.47	1.04
D	0.38	0.02	0.78

Key: Myotis sp. = Myotis species (not split by call); Noc = noctule; com pip = common pipistrelle; and sop pip = soprano pipistrelle

From this it may be seen that at least four species of bat were recorded on Site, with the highest levels of activity overall being recorded within the area of marshy grassland in the south of the Site (Location C), albeit this is heavily

influenced by the May data. In contrast the western and eastern Site boundaries were found to support relatively low levels of activity, as was the northern part of the Site.

## 4.2 Results of Water Vole Survey of Flat Moor Dyke

This ditch, located approximately 15 metres to the south-east of the site had been recently dredged in 2021, and the banks were entirely bare as a result (refer to Plate 7).

Two inspections were carried out; the first on the 1<sup>st</sup> of June and the second on the 4<sup>th</sup> of July 2021, on both occasions by Mr Gary Oliver, Principal Ecologist with SLR Consulting.

Neither search revealed water vole field signs. In any case, this ditch shall not be affected by the proposals, and therefore should water vole colonise Flat Moor Dyke at some point in the future, they will be unaffected.

## 4.3 Results of Great Crested Newt eDNA Surveys

Great crested newt (GCN) eDNA surveys were carried out during the Spring of 2021, specifically on the 1<sup>st</sup> of June 2021. A repeat survey of the Flat Moor Dyke (following an ‘indeterminate’ first result) was carried out on the 4<sup>th</sup> of July 2021; both surveys were undertaken by Mr Gary Oliver.

Pond P1, located a short distance to the south-east of the site, tested negative for traces of DNA; Flat Moor Dyke yielded an ‘indeterminate’ result on both occasions, due to precipitate in the water, but was noted to contain a large number of sticklebacks, making it generally unsuitable for GCN. The other ponds referred to by Wildcare in their correspondence were searched for but found to be either dry, or simply no longer present, on the 1<sup>st</sup> of June 2021. Great crested newt, therefore, does not pose a potential constraint to development.



Plate 7: Flat Moor Dyke (looking north towards Phase 2 of the Barnburgh Lane development) taken in June 2021

---

## DRAWING 1

### Proposed Ecological Enhancements to New Park Springs

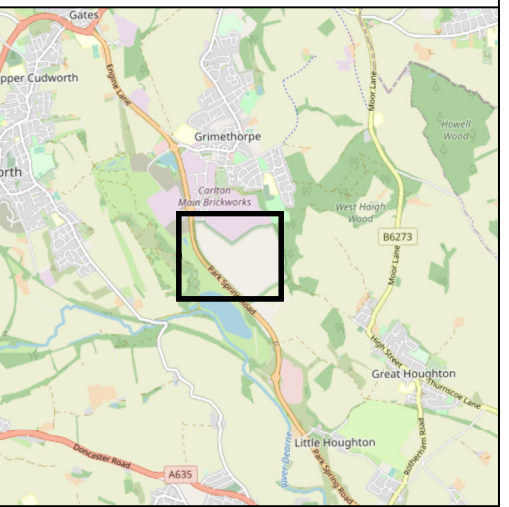


**LEGEND**

- Orchid Receptor Area
- Conifer Woodland Removal, Being Replaced With Mixed Scrub
- Proposed Mixed Shrub Planting

**Orchid Receptor Area**

- 1 - To Recieve 100 Marsh Orchids.
- 2 - Due to Recieve All Common Spotted Orchids.
- 3 - Due to Recieve 75 Marsh Orchids.
- 4 - To Recieve Remainder of Marsh Orchids, Estimated to be 75 Plants).



*homes by*  
**gleeson**

**SLR**

4/5 LOCHSIDE VIEW  
EDINBURGH PARK  
EDINBURGH  
EH12 9DH

T: +44 (0)131 335 6830  
www.slrconsulting.com

BARNBURGH LANE 3, GOLDTHORPE

---

PROPOSED ECOLOGICAL  
ENHANCEMENTS  
TO 'NEW PARK SPRINGS'

---

**DRAWING 1**

Scale 1:3,500 @ A3	Date AUGUST 2022
--------------------	------------------

03044.00237.0003.0 Proposed Ecological Enhancements to New Park Springs

---

## APPENDIX 1

Desk Study Data Received from the South Yorkshire Bat Group  
(supplied separately in Excel format)

---

## APPENDIX 2

### Desk Study Data Received from the South Yorkshire Badger Group

# **South Yorkshire Badger Group**

19/07/2022

## **Badger Setts Records for Oliver Consulting**

FAO Gary Oliver

Setts in 1km Km radius of SE 46560 03732

Purchase Order 424-1760

Our records show no badger setts within 1Km of the area of interest around grid reference SE 46560 03732

G Shepherd

Chair, South Yorkshire Badger Group

---

## APPENDIX 3

Metric 3.1 BNG Assessment (supplied separately in Excel format)

## EUROPEAN OFFICES

### United Kingdom

#### AYLESBURY

T: +44 (0)1844 337380

#### BELFAST

T: +44 (0)28 9073 2493

#### BRADFORD-ON-AVON

T: +44 (0)1225 309400

#### BRISTOL

T: +44 (0)117 906 4280

#### CAMBRIDGE

T: + 44 (0)1223 813805

#### CARDIFF

T: +44 (0)29 2049 1010

#### CHELMSFORD

T: +44 (0)1245 392170

#### EDINBURGH

T: +44 (0)131 335 6830

#### EXETER

T: + 44 (0)1392 490152

#### GLASGOW

T: +44 (0)141 353 5037

#### GUILDFORD

T: +44 (0)1483 889800

#### LONDON

T: +44 (0)203 691 5810

#### MAIDSTONE

T: +44 (0)1622 609242

#### MANCHESTER

T: +44 (0)161 872 7564

#### NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

#### NOTTINGHAM

T: +44 (0)115 964 7280

#### SHEFFIELD

T: +44 (0)114 2455153

#### SHREWSBURY

T: +44 (0)1743 23 9250

#### STAFFORD

T: +44 (0)1785 241755

#### STIRLING

T: +44 (0)1786 239900

#### WORCESTER

T: +44 (0)1905 751310

### France

#### GRENOBLE

T: +33 (0)4 76 70 93 41

### Ireland

#### DUBLIN

T: + 353 (0)1 296 4667