

# Springwell Solar Farm

Environmental Statement

## Appendix 7.9: Local Wildlife Site Verges Survey

Volume 3

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Springwell Energyfarm Ltd

APFP Regulation 5(2)(a)  
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Infrastructure Planning  
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2009

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# 1. Introduction

## 1.1. Purpose of the report

1.1.1. Preliminary Ecological Appraisal surveys of the Springwell Solar Farm 'Proposed Development' were undertaken in April/May 2022 and January 2023 [Ref-1]. Several Local Wildlife Sites (LWS's) were identified either within or adjacent to the Order Limits.

1.1.2. Four of these LWS's will potentially be affected by proposed works, by requiring sections removed for highways access. They are:

- Navenby Heath Road Verges
- A15 Green Man Road to Cuckoo Lane (2 sections)
- A15 Slate House Farm to Dunsby Pit Plantation
- Temple Road Verges (2 sections)

1.1.3. Two other LWS's, although not anticipated to be directly affected, were also considered due to their proximity to proposed works. They are:

- Gorse Hill Lane Verges
- Gorse Lane Verges

1.1.4. All of the six LWS's listed above are road/track grassland verges designated as calcareous grassland.

1.1.5. In June 2024, a habitat assessment and botanical survey of the six LWS's (targeting the areas likely to be affected) was carried out. The aim of the survey was to provide baseline information on the ecological importance of these sections of verge, and to evaluate these areas using LWS qualifying criteria.

## 1.2. Ecological context

1.2.1. The Proposed Development is located close to the villages of Blankney, Scopwick, and Ashby de la Launde in the district of North Kesteven, Lincolnshire (location is shown in **Figure 1**). The area is dominated by agricultural land (mostly large arable fields) bounded by hedgerows with a few, mostly small, broadleaved woodlands at the edges of the Order Limits.

1.2.2. The LWSs are all grassland road verges in Springwell West. Soils in Springwell West have a lighter, more calcareous soil type which is more suitable for calcareous grassland compared to Springwell East.

### 1.3. Proposed Development

- 1.3.1. The Proposed Development comprises the construction, operation and maintenance of Solar Photovoltaic (PV) generating modules, energy storage facilities, and grid connection infrastructure, across a proposed site in North Kesteven, Lincolnshire.
- 1.3.2. The Proposed Development is located within the administrative boundary of North Kesteven District Council and Lincolnshire County Council.

### 1.4. Legislation

- 1.4.1. As a non-statutory designation, Local Wildlife Sites have no formal legal protection. They are recognised in the National Planning and Policy Framework, which directs Local Planning Authorities to “safeguard components of local wildlife-rich habitats” including areas “identified by national and local partnerships for habitat management, enhancement, restoration or creation” **[Ref-2]**.

## 2. Methods

### 2.1. Desk survey

- 2.1.1. Ahead of the field surveys, the proposed cabling route and highways access plans, aerial imagery, and Ordnance survey maps were reviewed. LWS citations and Greater Lincolnshire Nature Partnership LWS guidelines [Ref-3] were reviewed in order that an appropriate field survey methodology could be planned.
- 2.1.2. The extents of Local Wildlife Sites and areas to be impacted by the proposed works were identified and mapped using ArcGIS – these areas were targeted for survey as detailed below.

### 2.2. Field assessment

- 2.2.1. An initial walkover of each section of LWS, where works are proposed, was made, after which sections were assessed using the following 3 methods:
- Several 1 x 1 m<sup>2</sup> quadrats were taken within each LWS, with all plant species identified and given a measure of abundance using the DAFOR system, in which species are assigned one of the following codes according to percentage cover: D – dominant; A – abundant; F – frequent; O – occasional and R – rare. The prefix L is used to denote a local distribution.
  - A full species list was taken for the entire section of LWS, again using DAFOR codes to give a measure of abundance. Species names are presented with common names (with capitals) followed by Latin names in brackets. After Latin names are first provided, common names are then used only thereafter.
  - LWS assessment forms [Ref-3] were filled out with notes on site and management.
- 2.2.2. A total of 10 quadrats were taken at each 'site' (proposed works area). Although as some sites were comprised of more than one LWS, this sometimes translated into more or fewer than 10 quadrats as shown in **Table 1**, below:

**Table 1 Sections assessed during LWS surveys, with number of quadrats taken**

LWS	LWS subsection	Number of quadrats
<b>Navenby Heath</b>	-	8
<b>A15 Green Man Road to Cuckoo Lane</b>	Northern subsection opposite Navenby Heath Road	2
<b>A15 Green Man Road to Cuckoo Lane</b>	Southern subsection	10
<b>Gorse Hill Lane</b>	-	6
<b>Gorse Hill</b>	-	4
<b>Temple Road Verges</b>	Western section	10
<b>Temple Road Verges</b>	Eastern section at junction with A15	10
<b>A15 Slate House Farm to Dunsby Pit Plantation</b>	-	10

- 2.2.3. Quadrat placements were chosen in order to provide a sample of the range and breadth of vegetation communities present within the section of LWS under assessment. No attempt was made during quadrating to capture every species in the wider LWS section, as this was done in the full species list.
- 2.2.4. As per Greater Lincolnshire Nature Partnership guidelines (on LWS's for Greater Lincolnshire) **[Ref-3]** all the LWS's under survey have been given the code CG1, denoting the presence of calcareous grassland. In order to qualify for LWS status, sites should contain a minimum of 8 calcareous grassland indicator species.
- 2.2.5. Where woodland was found (Gorse Lane), it was evaluated using the appropriate criteria **[Ref-3]**. These include threshold numbers of ancient woodland/semi-natural woodland species, and a list of woodland features.

## 3. Results

- 3.1.1. Quadrats and species lists for all sites are presented in **Appendix A**. Quadrat locations are shown in **Figure 2**.

### 3.2. Navenby Heath LWS

- 3.2.1. An area of mixed grassland on either side of a lane (minor road) running east-west. The verge was typically 2.5m – 3m on the south side of the lane, and 1.5m - 2m wide to the north. A strip of compacted ground on the edge of the metalled road was lacking in diversity, with Annual Meadow-grass (*Poa annua*) and Greater Plantain (*Plantago major*), which graded abruptly into grassland of a ranker nature. Rough Meadow-grass (*Poa trivialis*), Cock's-foot (*Dactylis glomerata*), Ribwort Plantain (*Plantago lanceolata*) and Yarrow (*Achillea millefolium*) were frequent to abundant within the survey area, and the sward was mostly above 25cm in height, with a grass/forb ratio of 50:50 or of higher grass to forb ratio.
- 3.2.2. At the time of the survey there was no evidence of any grassland management, but the adjacent hedgerows had apparently been flailed within the year.
- 3.2.3. Ten calcareous indicator species were recorded within the survey area:
- Tor-grass (*Brachypodium pinnatum*);
  - Upright Brome (*Bromopsis erecta*);
  - Common Knapweed (*Centaurea nigra* agg.);
  - Greater Knapweed (*Centaurea scabiosa*);
  - Lady's Bedstraw (*Galium verum*);
  - Field Scabious (*Knautia arvensis*);
  - Bird's-foot Trefoil (*Lotus corniculatus*);
  - Bulbous Buttercup (*Ranunculus bulbosus*);
  - Wild Mignonette (*Reseda lutea*); and
  - Bladder Champion (*Silene vulgaris*).

### 3.3. A15 Green Man Road to Cuckoo Lane LWS

- 3.3.1. Two quadrats were sampled in a small stretch of verge opposite the Navenby Heath Road junction. These were 30cm high swards with plentiful False Oat-grass (*Arrhenatherum elatius*), relatively few forbs and no calcareous indicator species.

- 3.3.2. Ten further quadrats were taken approximately 1.2km to the south on the verges of the A15 in the vicinity of the Gorse Hill Lane turning. These verges were between 2m - 6m in width, typically grading into scrub on a bank leading down to the arable land on either side. False Oat-grass and its associates Red Fescue (*Festuca rubra*) and Hogweed (*Heracleum sphondylium*) were abundant in a 40cm - 60cm sward that was mostly over 70% comprised of grass species. Some areas of shorter sward height were present and these often had a greater diversity of plant species present.
- 3.3.3. There was no evidence of recent management of this grassland.
- 3.3.4. The following 8 calcareous indicators were recorded:
- Tor-grass (*Brachypodium pinnatum*);
  - Upright Brome (*Bromopsis erecta*);
  - Common Knapweed (*Centaurea nigra* agg.);
  - Greater Knapweed (*Centaurea scabiosa*);
  - Lady's Bedstraw (*Galium verum*);
  - Common Rock-rose (*Helianthemum nummularium*);
  - Bird's-foot Trefoil (*Lotus corniculatus*); and
  - Bladder Champion (*Silene vulgaris*).

### 3.4. A15 Slate House Farm to Dunsby Pit Plantation LWS

- 3.4.1. This section consisted of verges along the north-south route of the A15 around the junctions with Temple Road and the B1191. Verges ranged from a c. 0.25km x 2.5m strip flanking hedgerow and scrub on the eastern side to a shorter, c. 15m wide expanse south of the Temple Road junction on the western side. They were mostly grass-dominated with some exceptions to the south where shorter forbs such as Creeping Buttercup (*Ranunculus repens*), Ribwort Plantain and Bird's-foot Trefoil were frequent to abundant. With one quadrat? exception, the sward height was under 30cm. False Oat-grass, Cock's-foot and Red Fescue were the most common grasses but Upright Brome was abundant-to-dominant in 3 quadrats and Yellow Oat-grass (*Trisetum flavescens*) was found in 2 places.
- 3.4.2. While no sign of recent management was seen, there was equally little sign of rabbit grazing. The shorter swards here may be sign of a rockier, more calcareous soil, or may indicate that mowing had taken place earlier in the season.



3.4.3. Nine calcareous indicator species were recorded here:

- Tor-grass (*Brachypodium pinnatum*);
- Upright Brome (*Bromopsis erecta*);
- Common Knapweed (*Centaurea nigra* agg.);
- Greater Knapweed (*Centaurea scabiosa*);
- Bird's-foot Trefoil (*Lotus corniculatus*);
- Bee Orchid (*Ophrys apifera*);
- Bulbous Buttercup (*Ranunculus bulbosus*);
- Wild Mignonette (*Reseda lutea*); and
- Yellow Oat-grass (*Trisetum flavescens*).

### 3.5. Temple Road Verges: Welbourn to Brauncewell LWS 1: verges immediately west of the A15

3.5.1. Verges at this point on Temple Road were narrow (1m - 2m) and affected by encroachment from unmanaged hedgerows on both sides. Quadrat locations were not always easy to find, but where scrub was absent sward height was for the most part under 30cm, and although grasses were dominant (often comprising >90% of the sward), a good range of other species were present, including eight calcareous indicators. Rough Meadow-grass was the most common species but both False Oat-grass and Cock's-foot were dominant in places. A narrow strip of Annual Meadow-grass and other low-growing species was present on the compacted ground at the roadside.

3.5.2. There was no sign of any recent management of the verge or the hedgerow.

3.5.3. The following eight calcareous indicator species were recorded:

- Upright Brome (*Bromopsis erecta*);
- Tor-grass (*Brachypodium pinnatum*);
- Common Knapweed (*Centaurea nigra* agg.);
- Lady's Bedstraw (*Galium verum*);
- Common Rock-rose (*Helianthemum nummularium*);
- Perforate St John's-wort (*Hypericum perforatum*);
- Salad Burnet (*Poterium sanguisorba*); and
- Yellow Oat-grass (*Trisetum flavescens*).

### 3.6. Temple Road Verges LWS '2'

- 3.6.1. These were even 2.5m verges either side of Temple Road, flanked by hedgerows with mature trees on both sides. The north-eastern side had been recently mown for most of its length, with the arisings left in place, so no detailed recording was possible here. All quadrats were grass-dominated, with False Oat-grass, Cock's-foot and Rough Meadow-grass the most common species, accompanied by Hogweed and Ribwort Plantain.
- 3.6.2. Four calcareous indicator species were recorded:
- Upright Brome (*Bromopsis erecta*);
  - Common Knapweed (*Centaurea nigra* agg.);
  - Lady's Bedstraw (*Galium verum*); and
  - Perforate St John's-wort (*Hypericum perforatum*).

### 3.7. Gorse Hill Lane LWS

- 3.7.1. The verges at this section of the Gorse Hill Lane LWS consisted of a 1.5m band flanking a hedgerow on the south side, and a somewhat wider band consisting of a transition to woodland on the northern side. The vegetation on both sides was characterised by a mix of rank grasses (principally False Oat-grass and Rough Meadow-grass) and scrub encroachment, with abundant seedlings of Wild Privet (*Ligustrum vulgare*), Ash (*Fraxinus excelsior*) and Hawthorn (*Crataegus monogyna*) competing with runners of Bramble (*Rubus fruticosus* agg.). As recording was mostly focused on areas of lesser scrub encroachment, this aspect of the vegetation was not fully captured in the quadrats, and actual average sward heights were considerably higher (c. 50cm) than the recorded figures might suggest.
- 3.7.2. Within this vegetation there was little room for low-growing or less competitive species, but a couple of small areas such as quadrats 2 and 5 had abundant forbs such as Germander Speedwell (*Veronica chamaedrys*) and Red Clover (*Trifolium pratense*).
- 3.7.3. No recent management was recorded, but evidence of rabbit grazing was seen in the areas of lower vegetation.
- 3.7.4. This area contained 3 calcareous indicator species:
- Tor-grass (*Brachypodium pinnatum*);
  - Common Knapweed (*Centaurea nigra* agg.); and
  - Sheep's Fescue (*Festuca ovina*).

### 3.8. Gorse Lane LWS

- 3.8.1. This section of the Gorse Lane LWS was comprised of a dirt path (or 'green lane') with open woodland (Gorse Hill Covert), mostly lined by mature Beech (*Fagus sylvatica*) trees, to the east of the path and dense Bramble scrub to the west. Some open areas had abundant bare ground but many were dominated by a dense mat of Ivy (*Hedera helix*). While the vegetation was typically patchy and varied, grass cover was generally low, with the prostrate woodland form of Rough Meadow-grass the most common species.
- 3.8.2. Although the Beech trees were mature, few veteran features were seen. No evidence was seen of management of this section of footpath, although the dirt path was wide and vegetation-free, suggesting that it receives both footfall and vehicular (likely farm) traffic.
- 3.8.3. No calcareous indicators were found. A single plant of Early Dog-violet (*Viola reichenbachiana*), an ancient woodland indicator, was seen at quadrat 7 and five species listed as semi-natural woodland indicators were found:
- Lords-and-Ladies (*Arum maculatum*);
  - Wood False-brome (*Brachypodium sylvaticum*);
  - Wild Privet (*Ligustrum vulgare*);
  - Three-nerved Sandwort (*Moehringia trinervia*); and
  - Sweet Violet (*Viola odorata*).
- 3.8.4. Few other woodland features of interest were recorded:
- Undisturbed, mature, shady, broadleaved habitat;
  - No more than small amounts of non-native plant species, whether planted or naturally colonised; and
  - Full age range within native tree species.

## 4. Evaluation and Conclusions

### 4.1. Value of habitats

- 4.1.1. Calcareous grassland is a priority habitat and Local Biodiversity Action Plan habitat in Lincolnshire. “There is probably less than 150ha of agriculturally unimproved calcareous grassland remaining in Greater Lincolnshire. The remnant grasslands of roadside verges have declined drastically in recent decades, but are now becoming more highly valued with increased recognition and management efforts through the Life on the Verge Project” - which was one of the largest roadside wildflower survey projects in the UK **[Ref-3]** undertaken by the Lincolnshire Wildlife Trust.
- 4.1.2. The threshold number of eight species required for designation as a LWS for calcareous grassland **[Ref-3]** was met or exceeded at the sections of LWS surveyed at Navenby Heath, A15 Green Man Road to Cuckoo Lane (southern section only), A15 Slate House Farm to Dunsby Pit Plantation and Temple Road ‘1’ (western section only). The presence of so many calcareous indicator species within short sections of these LWS sites outlines their high value for conservation.
- 4.1.3. The threshold was not met at the western section of Temple Road (Temple Road ‘2’) . It was also not met at A15 Green Man Road to Cuckoo Lane (northern section), Gorse Hill Lane and Gorse Lane however these sections of grass verge are not anticipated to be affected by works.
- 4.1.4. The western section of Temple Road (Temple Road 2) contained only four calcareous indicator species. More could have been present within the recently-cut grassland on the northeastern side, but a cursory look at arisings suggested that the mown section consisted of common species of rank grassland such as False Oat-grass, Rough Meadow-grass, Cow-parsley and Hogweed. The LWS citation for Temple Road states “This verge was identified and surveyed as part of the Lincolnshire Wildlife Trust’s Life on the Verge Project. Criterion passed: CG1, Mos1.” **[Ref-4]**. ‘Mos1’ is mosaic habitat which is defined as “areas at least 0.25ha in extent that support a combination of two or more individual habitats, each with a species index score that is no more than three points below the qualifying threshold” **[Ref-3]**.
- 4.1.5. The surveyed section of Gorse Hill Lane contained only three calcareous indicators. A small degree of scrub clearance could benefit calcareous grassland species in this area. The LWS citation for Gorse Hill Lane states “This verge was identified and surveyed as part of the Lincolnshire Wildlife Trust’s Life on the Verge Project. Criterion passed: CG1. Recommended as a Local Wildlife Site: 1 April 2011” **[Ref-4]**. There was scrub encroachment in the area surveyed which could be due to lack of

management since the verge was surveyed as part of the Life on the Verge Project in 2011.

- 4.1.6. The section of Gorse Lane surveyed (southern end) was comprised of woodland (edge of Gorse Hill Covet), making the use of CG1 indicator codes inappropriate. It failed to meet thresholds set under woodland codes WD1-6. The LWS citation for Gorse Lane states “since it was last surveyed in 1983 the lane has become overgrown with dense areas of bramble, bracken and scrub. A total of 91 plant species were recorded, including 11 woody species in the hedges, but no large areas of calcareous grassland remained and none of the significant species recorded previously (pyramidal orchid, quaking grass, dropwort, rockrose, small scabious, burnet saxifrage, wild parsnip and restharrow) was found. However, 12 indicator species of calcareous grassland were found (tor-grass, upright brome, common knapweed, greater knapweed, lady’s bedstraw, field scabious, common bird’s-foot trefoil, red bartsia, hoary plantain, wild mignonette, bladder campion and yellow oat grass); although, all of these species were in very small numbers and mainly in gaps in the hedge where there was a field entrance. Some of the fields margins on the east side held small numbers of calcicolous plants, including woolly thistle. At the southern end, under the trees on the east side of the lane, were 35 plants of wall lettuce, a rare species in this part of Lincolnshire” **[Ref-4]**. Calcareous grassland indicator species may have been present further north, however if scrub encroachment has not been managed then they are likely to have further declined in number.
- 4.1.7. All citations for the six LWS’s (except for Gorse Lane) simply state “This verge was identified and surveyed as part of the Lincolnshire Wildlife Trust’s Life on the Verge Project. Criterion passed: CG1” **[Ref-4]**. Although the A15 Green Man Road to Cuckoo Lane and Temple Road LWS’s also passed criteria for mosaic habitat ‘Mos1’ (mosaic habitat). Therefore, the main comparison that can be made with the sections surveyed are whether they meet the threshold number of calcareous species required to qualify as ‘CG1’ (calcareous grassland). Only the sections where works are proposed were sampled, which were relatively small and potentially uncharacteristic of the LWS area as a whole and therefore may be unlikely to meet the thresholds required to qualify as LWS’s. Although the results provide baseline information of the sections which will potentially be affected by works, these results should not be seen as reflective of the overall condition of the LWS’s, as the whole lengths of the LWS grass verges were not surveyed.
- 4.1.8. LWS’s are of County importance.
- 4.1.9. Despite the overall value of habitats, no species of principal importance for conservation were encountered.

## 4.2. Mitigation

- 4.2.1. Despite the overall value of habitats, no species of principal importance for conservation were encountered.
- 4.2.2. Where vegetation clearance is proposed, care should be taken to avoid soil compaction arising from vehicle movements on the verge. Track-matting should be used wherever possible and works should be timed so that the grassland is covered for the minimum possible length of time so that vegetation can recover naturally.
- 4.2.3. Where adverse impacts to grasslands arising from vegetation clearance would be temporary, reseeding of these areas is only recommended in cases where considerable expanses of bare ground are left after works, presenting a risk of soil erosion, as in most cases vegetation communities will recover naturally. If reseeding is necessary, due consideration should be given to the need to maintain the local character of vegetation communities by avoiding contamination with species uncharacteristic of the local area where possible. Green hay should be used if possible. If this is impossible, care should be taken to source seeds locally.
- 4.2.4. Where planned works include the construction of a permanent passing bay (Temple Road verges 1 and 2), the translocation of calcareous grassland species or harvesting of green hay would be recommended to provide compensatory habitat creation elsewhere. Across all of the LWS sections surveyed, verge management has favoured rank grasses such as False Oat-grass over calcareous communities characteristic of shorter turf. There is therefore an abundance of possible receptor sites for turf from donor sites. Alternatively (or additionally) nearby areas could be seeded with seed collected from such areas. Compensatory habitat creation would require a regime of grassland management including spring and autumn mowing with collection and removal of arisings in areas where this is practical. Discussion with the Lincolnshire Road Verge Biomass Harvesting Project led by the Lincolnshire Wildlife Trust would potentially provide mitigation opportunities.

## 5. References

- **Ref-1:** RSK Biocensus (2023) Springwell Solar Farm: Preliminary Ecological Appraisal Report. 2483765. RSK Biocensus, Coventry.
- **Ref-2:** Department for Levelling Up, Housing and Communities (2023). National Planning Policy Framework: Updated 2023. Available online:
  - <https://www.gov.uk/guidance/national-planning-policy-framework>
- **Ref-3:** Greater Lincolnshire Nature Partnership (2008). Local Wildlife Site Guidelines for Greater Lincolnshire. Available online:
  - [REDACTED]
- **Ref-4:** Lincolnshire Biodiversity Partnership (2011). Local Wildlife Site Citations: Gorse Lane. Last updated 13 October 2011.

# Appendix 1 - Species List





The following species were recorded on 6<sup>th</sup> June 2024 within the sections of LWS assessed. Lists are presented as a full site species list followed by a list of 1 x1 quadrats taken. Calcareous indicator species are highlighted in bold type.

Table 2: Species recorded in sections of Navenby Heath and A15 Green Man Road to Cuckoo Lane LWS on 6<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Acer pseudoplatanus</i> (Sycamore)	R
<i>Crataegus monogyna</i> (Hawthorn)	R
<i>Fraxinus excelsior</i> (Ash)	R
<i>Hedera helix</i> (Ivy)	R
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Rosa canina</i> (Dog-rose)	R
<i>Rubus fruticosus</i> agg. (Bramble)	R
<i>Sambucus nigra</i> (Elder)	R
Herbaceous species: grasses, sedges and rushes	
<i>Agrostis stolonifera</i> (Creeping Bent)	R
<i>Anisantha sterilis</i> (Barren Brome)	F
<i>Arrhenatherum elatius</i> (False Oat-grass)	A
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	LF
<i>Brachypodium sylvaticum</i> (False Brome)	R
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	LF
<i>Bromus hordeaceus</i> (Soft-brome)	LF
<i>Dactylis glomerata</i> (Cock's-foot)	O
<i>Festuca rubra</i> (Red Fescue)	LF
<i>Holcus lanatus</i> (Yorkshire-fog)	R
<i>Lolium perenne</i> (Perennial Rye-grass)	R
<i>Phleum pratense</i> (Timothy)	R
<i>Poa annua</i> (Annual Meadow-grass)	F
<i>Poa trivialis</i> (Rough Meadow-grass)	LA
<i>Schedonorus arundinaceus</i> (Tall Fescue)	R
Herbaceous species: other	
<i>Achillea millefolium</i> (Yarrow)	O
<i>Anthriscus sylvestris</i> (Cow Parsley)	O
<i>Artemisia vulgaris</i> (Mugwort)	R
<i>Bellis perennis</i> (Daisy)	R
<i>Capsella bursa-pastoris</i> (Shepherd's-purse)	R
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	O
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>	R
<i>Cerastium fontanum</i> (Common Mouse-ear)	R

Species	Abundance
<i>Chaerophyllum temulum</i> (Rough Chervil)	R
<i>Chamaenerion angustifolium</i> (Rosebay Willowherb)	R
<i>Cirsium arvense</i> (Creeping Thistle)	R
<i>Convolvulus arvensis</i> (Field Bindweed)	O
<i>Galium aparine</i> (Cleavers)	F
<b>Galium verum (Lady's Bedstraw)</b>	O
<i>Heracleum sphondylium</i> (Hogweed)	O
<i>Hypochaeris radicata</i> (Cat's-ear)	R
<i>Jacobaea vulgaris</i> (Common Ragwort)	R
<b>Knautia arvensis (Field Scabious)</b>	R
<i>Lactuca serriola</i> (Prickly Lettuce)	R
<i>Lamium album</i> (White Dead-nettle)	R
<i>Lathyrus pratensis</i> (Meadow Vetchling)	R
<b>Lotus corniculatus (Common Bird's-foot-trefoil)</b>	R
<i>Matricaria discoidea</i> (Pineappleweed)	R
<i>Medicago lupulina</i> (Black Medick)	R
<i>Medicago sativa</i> ssp. <i>sativa</i> (Lucerne)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	F
<i>Plantago major</i> (Greater Plantain)	O
<i>Potentilla reptans</i> (Creeping Cinquefoil)	F
<b>Ranunculus bulbosus (Bulbous Buttercup)</b>	R
<i>Ranunculus repens</i> (Creeping Buttercup)	R
<b>Reseda lutea (Wild Mignonette)</b>	R
<i>Rumex acetosa</i> (Common Sorrel)	R
<i>Rumex crispus</i> (Curled Dock)	R
<i>Rumex obtusifolius</i> (Broad-leaved Dock)	O
<i>Scorzoneroideis autumnalis</i> (Autumn Hawkbit)	R
<i>Senecio vulgaris</i> (Groundsel)	R
<i>Silene latifolia</i> (White Champion)	O
<b>Silene vulgaris (Bladder Champion)</b>	LF
<i>Sison amomum</i> (Stone Parsley)	R
<i>Sonchus asper</i> (Prickly Sow-thistle)	R
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)	R
<i>Trifolium dubium</i> (Lesser Trefoil)	R
<i>Trifolium pratense</i> (Red Clover)	R
<i>Trifolium repens</i> (White Clover)	R
<i>Urtica dioica</i> (Common Nettle)	O
<i>Veronica chamaedrys</i> (Germander Speedwell)	R
<i>Vicia sativa</i> ssp. <i>segetalis</i> (Common Vetch)	R

Table 3: Quadrats recorded in sections of Navenby Heath and A15 Green Man Road to Cuckoo Lane LWS on 6<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
LWS	Navenby Heath				A15 Green Man Road to Cuckoo Lane		Navenby Heath			
<i>Achillea millefolium</i> (Yarrow)				R	R		R		R	
<i>Anthriscus sylvestris</i> (Cow Parsley)	R	F								O
<i>Arrhenatherum elatius</i> (False Oat-grass)		A			D					
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>				F			A			
<b><i>Bromopsis erecta</i> (Upright Brome)</b>									F	
<i>Bromus hordeaceus</i> (Soft-brome)					R	A				
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>			F	R			R			
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>				R						
<i>Cerastium fontanum</i> (Common Mouse-ear)			R							
<i>Convolvulus arvensis</i> (Field Bindweed)								R		O
<i>Dactylis glomerata</i> (Cock's-foot)	F	R	F		R			R	R	
<i>Festuca rubra</i> (Red Fescue)			A	A	F		A		A	
<i>Galium aparine</i> (Cleavers)								R		
<b><i>Galium verum</i> (Lady's Bedstraw)</b>	R									A
<i>Heracleum sphondylium</i> (Hogweed)		R	O							F
<i>Holcus lanatus</i> (Yorkshire-fog)			O						R	
<i>Hypochaeris radicata</i> (Cat's-ear)				O						
<i>Lamium album</i> (White Dead-nettle)		R								
<i>Lolium perenne</i> (Perennial Rye-grass)	R									
<i>Medicago lupulina</i> (Black Medick)			R							
<i>Plantago lanceolata</i> (Ribwort Plantain)		O	R					R		O
<i>Poa annua</i> (Annual Meadow-grass)			R				R			

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
LWS	Navenby Heath				A15 Green Man Road to Cuckoo Lane		Navenby Heath			
<i>Poa trivialis</i> (Rough Meadow-grass)	A	A	A			O		D	O	A
<i>Potentilla reptans</i> (Creeping Cinquefoil)				R		F			F	R
<i>Ranunculus bulbosus</i> (Bulbous Buttercup)			R	R			O			
<i>Ranunculus repens</i> (Creeping Buttercup)		O								
<i>Rubus fruticosus</i> agg. (Bramble)			R							
<i>Rumex crispus</i> (Curled Dock)						R			R	
<i>Schedonorus arundinaceus</i> (Tall Fescue)			O							
<i>Scorzoneroides autumnalis</i> (Autumn Hawkbit)								O		
<b><i>Silene vulgaris</i> (Bladder Champion)</b>				F						
<i>Sison amomum</i> (Stone Parsley)							O			
<i>Sonchus asper</i> (Prickly Sow-thistle)							R			
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)								R		
<i>Trifolium pratense</i> (Red Clover)				O						
<i>Trifolium repens</i> (White Clover)		O		R						
<i>Urtica dioica</i> (Common Nettle)		R			R					
<i>Vicia sativa</i> ssp. <i>segetalis</i> (Common Vetch)			R							
Sward height (cm)	30	35	30	10	30	30	15	30	35	35
Bare ground (%)	0	0	5	5	0	15	8	8	0	5
Grasses:forbs (%)	90/10	60/40	60/40	45/55	98/2	60/40	75/25	90/10	70/30	55/45

Table 4: Species recorded in sections of A15 Green Man Road to Cuckoo Lane LWS on 6<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Crataegus monogyna</i> (Hawthorn)	R
<i>Hedera helix</i> (Ivy)	R
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Prunus spinosa</i> (Blackthorn)	R
<i>Rosa canina</i> (Dog-rose)	R
<i>Rubus fruticosus</i> agg. (Bramble)	R
Herbaceous species: grasses, sedges and rushes	
<i>Anisantha sterilis</i> (Barren Brome)	R
<i>Arrhenatherum elatius</i> (False Oat-grass)	A
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	LA
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	R
<i>Dactylis glomerata</i> (Cock's-foot)	R
<i>Festuca rubra</i> (Red Fescue)	F
<i>Poa trivialis</i> (Rough Meadow-grass)	O
Herbaceous species: other	
<i>Achillea millefolium</i> (Yarrow)	O
<i>Artemisia vulgaris</i> (Mugwort)	R
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	O
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>	R
<i>Chaerophyllum temulum</i> (Rough Chervil)	R
<i>Cirsium arvense</i> (Creeping Thistle)	O
<i>Cochlearia danica</i> (Danish Scurvygrass)	LF
<i>Conium maculatum</i> (Hemlock)	R

Species	Abundance
<i>Convolvulus arvensis</i> (Field Bindweed)	F
<i>Galium aparine</i> (Cleavers)	R
<b><i>Galium verum</i> (Lady's Bedstraw)</b>	R
<b><i>Helianthemum nummularium</i> (Common Rock-rose)</b>	LF
<i>Heracleum sphondylium</i> (Hogweed)	R
<i>Lactuca serriola</i> (Prickly Lettuce)	R
<i>Lamium album</i> (White Dead-nettle)	R
<i>Lathyrus pratensis</i> (Meadow Vetchling)	R
<i>Linaria vulgaris</i> (Common Toadflax)	R
<b><i>Lotus corniculatus</i> (Common Bird's-foot-trefoil)</b>	R
<i>Malva sylvestris</i> (Common Mallow)	R
<i>Myosotis arvensis</i> (Field Forget-me-not)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	R
<i>Plantago major</i> (Greater Plantain)	R
<i>Potentilla reptans</i> (Creeping Cinquefoil)	F
<i>Ranunculus repens</i> (Creeping Buttercup)	R
<i>Rumex acetosa</i> (Common Sorrel)	R
<i>Rumex crispus</i> (Curled Dock)	R
<i>Rumex obtusifolius</i> (Broad-leaved Dock)	R
<i>Senecio vulgaris</i> (Groundsel)	R
<i>Silene latifolia</i> (White Champion)	R
<b><i>Silene vulgaris</i> (Bladder Champion)</b>	O
<i>Silene x hampeana</i> (Hybrid Champion)	R
<i>Stachys sylvatica</i> (Hedge Woundwort)	R
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)	R
<i>Tragopogon pratensis</i> (Goat's-beard)	R
<i>Trifolium medium</i> (Zigzag Clover)	R

Species	Abundance
<i>Trifolium pratense</i> (Red Clover)	O
<i>Urtica dioica</i> (Common Nettle)	O
<i>Vicia sativa</i> ssp. <i>segetalis</i> (Common Vetch)	R

Table 5: Quadrats recorded in sections of A15 Green Man Road to Cuckoo Lane LWS on 6<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Achillea millefolium</i> (Yarrow)	R				O					
<i>Anthriscus sylvestris</i> (Cow Parsley)			R					R		
<i>Arrhenatherum elatius</i> (False Oat-grass)	F	R	D	R	R	A	F	D	R	R
<i>Artemisia vulgaris</i> (Mugwort)	R									
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	A	D			D	A	A		D	A
<b><i>Bromopsis erecta</i> (Upright Brome)</b>				A						F
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	R	F		O			R			
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>				O						O
<i>Cirsium arvense</i> (Creeping Thistle)								R		
<i>Conium maculatum</i> (Hemlock)								R		
<i>Convolvulus arvensis</i> (Field Bindweed)			R							
<i>Dactylis glomerata</i> (Cock's-foot)							R			
<i>Festuca rubra</i> (Red Fescue)	F		O	F	O	R	F		O	F
<i>Galium aparine</i> (Cleavers)			R						R	
<b><i>Galium verum</i> (Lady's Bedstraw)</b>				R	R					
<b><i>Helianthemum nummularium</i> (Common Rock-rose)</b>				A	LF					
<i>Heracleum sphondylium</i> (Hogweed)			R	R	F	R		O	R	
<i>Lamium album</i> (White Dead-nettle)							R			
<i>Lathyrus pratensis</i> (Meadow Vetchling)					R					F
<i>Linaria vulgaris</i> (Common Toadflax)	R									
<i>Poa trivialis</i> (Rough Meadow-grass)		R	O	R						O



Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Potentilla reptans</i> (Creeping Cinquefoil)	F	R					F			
<b><i>Silene vulgaris</i> (Bladder Campion)</b>										O
<i>Trifolium pratense</i> (Red Clover)									R	
Sward height (cm)	40	50	40	30	50	60	50	80	60	50
Bare ground (%)	0	5	5	0	0	0	0	5	0	0
Grasses:forbs (%)	85:15	90:10	70:30	45:55	85:15	100	60:40	70:30	95:5	90:10

Table 6: Species recorded in sections of A15 Slate House Farm to Dunsby Pit Plantation LWS on 6<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Rubus fruticosus</i> agg. (Bramble)	R
Herbaceous species: grasses, sedges and rushes	
<i>Arrhenatherum elatius</i> (False Oat-grass)	F
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	R
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	LA
<i>Bromus hordeaceus</i> (Soft-brome)	F
<i>Dactylis glomerata</i> (Cock's-foot)	F
<i>Festuca rubra</i> (Red Fescue)	F
<i>Holcus lanatus</i> (Yorkshire-fog)	R
<i>Lolium perenne</i> (Perennial Rye-grass)	R
<i>Poa trivialis</i> (Rough Meadow-grass)	O
<b><i>Trisetum flavescens</i> (Yellow Oat-grass)</b>	R
<i>Vulpia bromoides</i> (Squirreltail Fescue)	LF
Herbaceous species: other	
<i>Achillea millefolium</i> (Yarrow)	O
<i>Anthriscus sylvestris</i> (Cow Parsley)	R
<i>Arenaria serpyllifolia</i> (Thyme-leaved Sandwort)	R
<i>Bellis perennis</i> (Daisy)	R
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	LF
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>	R
<i>Cerastium fontanum</i> (Common Mouse-ear)	R
<i>Cerastium glomeratum</i> (Sticky Mouse-ear)	R
<i>Chamaenerion angustifolium</i> (Rosebay Willowherb)	R
<i>Conium maculatum</i> (Hemlock)	R
<i>Convolvulus arvensis</i> (Field Bindweed)	R
<i>Erodium cicutarium</i> (Common Stork's-bill)	LF
<i>Galium aparine</i> (Cleavers)	R
<i>Geranium molle</i> (Dove's-foot Crane's-bill)	R
<i>Glechoma hederacea</i> (Ground-ivy)	R
<i>Heracleum sphondylium</i> (Hogweed)	R
<i>Jacobaea vulgaris</i> (Common Ragwort)	R
<i>Lathyrus pratensis</i> (Meadow Vetchling)	LF
<b><i>Lotus corniculatus</i> (Common Bird's-foot-trefoil)</b>	O
<i>Medicago lupulina</i> (Black Medick)	R
<b><i>Ophrys apifera</i> (Bee Orchid)</b>	R
<i>Plantago coronopus</i> (Buck's-horn Plantain)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	F
<i>Potentilla reptans</i> (Creeping Cinquefoil)	R
<i>Ranunculus acris</i> (Meadow Buttercup)	R
<b><i>Ranunculus bulbosus</i> (Bulbous Buttercup)</b>	LF

Species	Abundance
<i>Ranunculus repens</i> (Creeping Buttercup)	LF
<b><i>Reseda lutea</i> (Wild Mignonette)</b>	R
<i>Rumex obtusifolius</i> (Broad-leaved Dock)	R
<i>Silene latifolia</i> (White Champion)	R
<i>Trifolium dubium</i> (Lesser Trefoil)	R
<i>Trifolium hybridum</i> (Alsike Clover)	R
<i>Trifolium repens</i> (White Clover)	R
<i>Urtica dioica</i> (Common Nettle)	R
<i>Vicia sativa</i> ssp. <i>segetalis</i> (Common Vetch)	R

Table 7: Quadrats recorded in sections of A15 Slate House Farm to Dunsby Pit Plantation LWS on 6<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Achillea millefolium</i> (Yarrow)					F	R	R	R	O	
<i>Arenaria serpyllifolia</i> (Thyme-leaved Sandwort)	R									
<i>Arrhenatherum elatius</i> (False Oat-grass)	F		A			O	R		R	A
<i>Bellis perennis</i> (Daisy)					O			R	O	
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	O								R	
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	O	A		D	A					
<i>Bromus hordeaceus</i> (Soft-brome)	F					F				
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	O								A	
<b><i>Centaurea scabiosa</i> (Greater Knapweed)</b>	O									
<i>Cerastium fontanum</i> (Common Mouse-ear)					R					
<i>Cerastium glomeratum</i> (Sticky Mouse-ear)	O									
<i>Convolvulus arvensis</i> (Field Bindweed)										R
<i>Dactylis glomerata</i> (Cock's-foot)			F		O		O	O	R	O
<i>Erodium cicutarium</i> (Common Stork's-bill)	F									
<i>Festuca rubra</i> (Red Fescue)		F	A			A	F	A	R	
<i>Galium aparine</i> (Cleavers)	R									
<i>Geranium molle</i> (Dove's-foot Crane's-bill)	R									
<i>Glechoma hederacea</i> (Ground-ivy)										R
<i>Heracleum sphondylium</i> (Hogweed)						R				R
<i>Lathyrus pratensis</i> (Meadow Vetchling)								A		
<b><i>Lotus corniculatus</i> (Common Bird's-foot-trefoil)</b>						F	F			
<i>Medicago lupulina</i> (Black Medick)					R					
<i>Plantago lanceolata</i> (Ribwort Plantain)	F	O			O		F	O	F	O

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Poa trivialis</i> (Rough Meadow-grass)						O		F		A
<b><i>Ranunculus bulbosus</i> (Bulbous Buttercup)</b>								O	R	
<i>Ranunculus repens</i> (Creeping Buttercup)						A				
<i>Rubus fruticosus</i> agg. (Bramble)				O						
<i>Silene latifolia</i> (White Campion)										O
<i>Taraxacum</i> sect. <i>taraxacum</i> (Common Dandelion)							F			
<b><i>Trisetum flavescens</i> (Yellow Oat-grass)</b>							R			
<i>Vulpia bromoides</i> (Squirreltail Fescue)	F									
Sward height (cm)	15	20	60	30	20	15	20	20	20	25
Bare ground (%)	30	5	0	5	0	5	0	0	10	5
Grasses:forbs (%)	50:50	95:5	100:0	80:20	70:30	10:90	20:80	30:70	60:40	80:20

Table 8: Species recorded in Temple Road Verges LWS section 1 on 6<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Crataegus monogyna</i> (Hawthorn)	R
<i>Hedera helix</i> (Ivy)	R
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Prunus spinosa</i> (Blackthorn)	R
<i>Rosa canina</i> (Dog-rose)	R
<i>Rubus caesius</i> (Dewberry)	R
<i>Rubus fruticosus</i> agg. (Bramble)	R
<i>Sambucus nigra</i> (Elder)	R
<i>Ulmus glabra</i> (Wych Elm)	R
Herbaceous species: grasses, sedges and rushes	
<i>Anisantha sterilis</i> (Barren Brome)	O
<i>Arrhenatherum elatius</i> (False Oat-grass)	F/LA
<i>Brachypodium pinnatum</i> (Tor-grass)	R
<i>Bromopsis erecta</i> (Upright Brome)	LF
<i>Dactylis glomerata</i> (Cock's-foot)	F/LA
<i>Festuca rubra</i> (Red Fescue)	F/LA
<i>Phleum pratense</i> (Timothy)	R
<i>Poa annua</i> (Annual Meadow-grass)	R
<i>Poa pratensis</i> (Smooth Meadow-grass)	R
<i>Poa trivialis</i> (Rough Meadow-grass)	F
<i>Trisetum flavescens</i> (Yellow Oat-grass)	LF
Herbaceous species: other	
<i>Alliaria petiolata</i> (Garlic Mustard)	R
<i>Anthriscus sylvestris</i> (Cow Parsley)	R
<i>Ballota nigra</i> (Black Horehound)	R
<i>Bryonia dioica</i> (White Bryony)	R
<i>Centaurea nigra</i> (Common Knapweed)	R
<i>Chaerophyllum temulum</i> (Rough Chervil)	R
<i>Convolvulus arvensis</i> (Field Bindweed)	R
<i>Galium aparine</i> (Cleavers)	R
<i>Galium verum</i> (Lady's Bedstraw)	R
<i>Glechoma hederacea</i> (Ground-ivy)	R
<i>Helianthemum nummularium</i> (Common Rock-rose)	LF
<i>Heracleum sphondylium</i> (Hogweed)	O
<i>Hypericum perforatum</i> (Perforate St John's-wort)	R
<i>Jacobaea vulgaris</i> (Common Ragwort)	R
<i>Lactuca serriola</i> (Prickly Lettuce)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	R
<i>Poterium sanguisorba</i> (Salad Burnet)	LF
<i>Ranunculus bulbosus</i> (Bulbous Buttercup)	R
<i>Ranunculus repens</i> (Creeping Buttercup)	LF

Species	Abundance
<i>Rumex acetosa</i> (Common Sorrel)	R
<i>Silene latifolia</i> (White Campion)	R
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)	R
<i>Urtica dioica</i> (Common Nettle)	R

Table 9: Quadrats recorded in Temple Road Verges LWS section 1 on 6<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Alliaria petiolata</i> (Garlic Mustard)							R			
<i>Anisantha sterilis</i> (Barren Brome)		F	O	R				R	R	
<i>Arrhenatherum elatius</i> (False Oat-grass)			F	A	O		A		D	F
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>										R
<b><i>Bromopsis erecta</i> (Upright Brome)</b>					F					
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>					O	R				
<i>Chaerophyllum temulum</i> (Rough Chervil)									R	
<i>Conium maculatum</i> (Hemlock)							R			
<i>Convolvulus arvensis</i> (Field Bindweed)	R									O
<i>Dactylis glomerata</i> (Cock's-foot)	D	A	O		R	F				
<i>Festuca rubra</i> (Red Fescue)			A	O	F		A			
<i>Galium aparine</i> (Cleavers)				R			R			
<b><i>Galium verum</i> (Lady's Bedstraw)</b>			O	O	R					
<i>Glechoma hederacea</i> (Ground-ivy)							R	R	R	
<i>Hedera helix</i> (Ivy)									R	
<b><i>Helianthemum nummularium</i> (Common Rock-rose)</b>					F					
<i>Heracleum sphondylium</i> (Hogweed)						O				F
<b><i>Hypericum perforatum</i> (Perforate St John's-wort)</b>					O					
<i>Lactuca serriola</i> (Prickly Lettuce)		R	R							
<i>Lolium perenne</i> (Perennial Rye-grass)	O	O				R				
<i>Phleum pratense</i> (Timothy)						O				
<i>Plantago lanceolata</i> (Ribwort Plantain)			O		R					R
<i>Poa annua</i> (Annual Meadow-grass)	O	F						R	R	
<i>Poa pratensis</i> (Smooth Meadow-grass)						O				



Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Poa trivialis</i> (Rough Meadow-grass)	F	F		A	R	A	F	A	O	F
<b><i>Poterium sanguisorba</i> (Salad Burnet)</b>				A						
<i>Prunus spinosa</i> (Blackthorn) (seedling)		R						R		
<i>Ranunculus repens</i> (Creeping Buttercup)						A				
<i>Rubus caesius</i> (Dewberry)				R			O			
<i>Silene latifolia</i> (White Campion)			R	R						
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)		R	R					R		
<b><i>Trisetum flavescens</i> (Yellow Oat-grass)</b>				F	O					F
<i>Urtica dioica</i> (Common Nettle)								O	R	
<i>Veronica chamaedrys</i> (Germander Speedwell)				R						
Sward height (cm)	20	15	20	20	15	25	15	10	30	40
Bare ground (%)	10	10	5	5	5	0	10	25	5	0
Grasses:forbs (%)	90:10	85:15	70:30	60:40	50:50	90:10	95:5	95:5	95:5	60:40

Table 10: Species recorded in Temple Road Verges LWS section 2 on 6<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Crataegus monogyna</i> (Hawthorn)	R
<i>Fagus sylvatica</i> (Beech)	R
<i>Fraxinus excelsior</i> (Ash)	R
<i>Hedera helix</i> (Ivy)	R
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Prunus spinosa</i> (Blackthorn)	R
Herbaceous species: grasses, sedges and rushes	
<i>Agrostis stolonifera</i> (Creeping Bent)	LF
<i>Anisantha sterilis</i> (Barren Brome)	O
<i>Arrhenatherum elatius</i> (False Oat-grass)	LA
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	R
<i>Dactylis glomerata</i> (Cock's-foot)	F
<i>Festuca rubra</i> (Red Fescue)	F
<i>Poa annua</i> (Annual Meadow-grass)	LF
<i>Poa trivialis</i> (Rough Meadow-grass)	A
Herbaceous species: other	
<i>Achillea millefolium</i> (Yarrow)	R
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	R
<i>Chaerophyllum temulum</i> (Rough Chervil)	R
<i>Conium maculatum</i> (Hemlock)	R
<i>Convolvulus arvensis</i> (Field Bindweed)	R
<i>Galium aparine</i> (Cleavers)	O
<b><i>Galium verum</i> (Lady's Bedstraw)</b>	R
<i>Glechoma hederacea</i> (Ground-ivy)	R
<i>Heracleum sphondylium</i> (Hogweed)	F
<b><i>Hypericum perforatum</i> (Perforate St John's-wort)</b>	LF
<i>Plantago lanceolata</i> (Ribwort Plantain)	R
<i>Ranunculus repens</i> (Creeping Buttercup)	R
<i>Rumex conglomeratus</i> (Clustered Dock)	R
<i>Silene latifolia</i> (White Campion)	R
<i>Trifolium pratense</i> (Red Clover)	R
<i>Veronica chamaedrys</i> (Germander Speedwell)	R

Table 11: Quadrats recorded in Temple Road Verges LWS section 1 on 6<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Achillea millefolium</i> (Yarrow)			R							
<i>Agrostis stolonifera</i> (Creeping Bent)		R			O	F				
<i>Anisantha sterilis</i> (Barren Brome)	O	R	R							
<i>Anthriscus sylvestris</i> (Cow Parsley)			R	R		R		O		
<i>Arrhenatherum elatius</i> (False Oat-grass)		A	A	O		R	R	R	F	F
<b><i>Bromopsis erecta</i> (Upright Brome)</b>	F									
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>										R
<i>Chaerophyllum temulum</i> (Rough Chervil)									R	
<i>Conium maculatum</i> (Hemlock)									R	
<i>Convolvulus arvensis</i> (Field Bindweed)					O					
<i>Dactylis glomerata</i> (Cock's-foot)	F	R	R	O	R	R	O	R	O	O
<i>Festuca rubra</i> (Red Fescue)	A		O		O		F		F	O
<i>Galium aparine</i> (Cleavers)	R	O					R			R
<b><i>Galium verum</i> (Lady's Bedstraw)</b>										O
<i>Glechoma hederacea</i> (Ground-ivy)			O							R
<i>Heracleum sphondylium</i> (Hogweed)		R		O	O	O	F	F		O
<b><i>Hypericum perforatum</i> (Perforate St John's-wort)</b>			F							
<i>Plantago lanceolata</i> (Ribwort Plantain)	R			O	F			R		R
<i>Poa trivialis</i> (Rough Meadow-grass)		A		D	D	D	A	D	F	A
<i>Prunus spinosa</i> (Blackthorn) (seedling)								R		R
<i>Ranunculus repens</i> (Creeping Buttercup)									R	
<i>Rumex conglomeratus</i> (Clustered Dock)					R					
<i>Trifolium pratense</i> (Red Clover)										R

Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
<i>Veronica chamaedrys</i> (Germander Speedwell)			0							
Sward height (cm)	30	30	20	60	40	50	50	10	15	40
Bare ground (%)	0	0	0	0	0	0	0	0	5	0
Grasses:forbs (%)	85:15	90:10	60:40	80:20	60:40	80:20	70:30	60:40	95:5	60:40

Table 12: Species recorded in section of Gorse Hill Lane LWS on 7<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Acer pseudoplatanus</i> (Sycamore)	R
<i>Crataegus monogyna</i> (Hawthorn)	O
<i>Fraxinus excelsior</i> (Ash)	R
<i>Hedera helix</i> (Ivy)	A
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Prunus spinosa</i> (Blackthorn)	R
<i>Rosa canina</i> (Dog-rose)	O
<i>Rubus fruticosus</i> agg. (Bramble)	F
<i>Sambucus nigra</i> (Elder)	R
Herbaceous species: grasses, sedges and rushes	
<i>Anisantha sterilis</i> (Barren Brome)	LA
<i>Arrhenatherum elatius</i> (False Oat-grass)	R
<b><i>Brachypodium pinnatum</i> (Tor-grass)</b>	<b>LF</b>
<i>Bromus hordeaceus</i> (Soft-brome)	R
<i>Dactylis glomerata</i> (Cock's-foot)	R
<b><i>Festuca ovina</i> (Sheep's-fescue)</b>	<b>R</b>
<i>Festuca rubra</i> (Red Fescue)	LF
<i>Holcus lanatus</i> (Yorkshire-fog)	R
<i>Lolium perenne</i> (Perennial Rye-grass)	O
<i>Phleum pratense</i> (Timothy)	O
<i>Poa annua</i> (Annual Meadow-grass)	LF
<i>Poa trivialis</i> (Rough Meadow-grass)	O
Herbaceous species: other	
<i>Alliaria petiolata</i> (Garlic Mustard)	R
<i>Anthriscus sylvestris</i> (Cow Parsley)	O
<i>Arctium minus</i> (Lesser Burdock)	R
<i>Artemisia vulgaris</i> (Mugwort)	R
<i>Ballota nigra</i> (Black Horehound)	R
<i>Bryonia dioica</i> (White Bryony)	R
<i>Carduus crispus</i> (Wetted Thistle)	R
<b><i>Centaurea nigra</i> agg. (Common Knapweed)</b>	<b>R</b>
<i>Cerastium fontanum</i> (Common Mouse-ear)	R
<i>Chaerophyllum temulum</i> (Rough Chervil)	R
<i>Cirsium arvense</i> (Creeping Thistle)	O
<i>Cirsium vulgare</i> (Spear Thistle)	R
<i>Epilobium tetragonum</i> (Square-stalked Willowherb)	R
<i>Galium aparine</i> (Cleavers)	F
<i>Geranium molle</i> (Dove's-foot Crane's-bill)	R
<i>Geranium pusillum</i> (Small-flowered Crane's-bill)	R
<i>Geranium robertianum</i> (Herb-Robert)	R
<i>Geum urbanum</i> (Wood Avens)	R

Species	Abundance
<i>Glechoma hederacea</i> (Ground-ivy)	R*
<i>Helleborus foetidus</i> (Stinking Hellebore)	R
<i>Heracleum sphondylium</i> (Hogweed)	F
<i>Jacobaea vulgaris</i> (Common Ragwort)	O
<i>Lamium album</i> (White Dead-nettle)	O
<i>Linaria vulgaris</i> (Common Toadflax)	R
<i>Myosotis arvensis</i> (Field Forget-me-not)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	R
<i>Plantago major</i> (Greater Plantain)	R
<i>Potentilla reptans</i> (Creeping Cinquefoil)	F
<i>Prunella vulgaris</i> (Selfheal)	R
<i>Rumex obtusifolius</i> (Broad-leaved Dock)	R
<i>Scorzoneroides autumnalis</i> (Autumn Hawkbit)	R
<i>Silene latifolia</i> (White Campion)	R
<i>Sonchus asper</i> (Prickly Sow-thistle)	R
<i>Sonchus oleraceus</i> (Smooth Sow-thistle)	R
<i>Stachys sylvatica</i> (Hedge Woundwort)	R
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)	O
<i>Trifolium pratense</i> (Red Clover)	R
<i>Trifolium repens</i> (White Clover)	O
<i>Urtica dioica</i> (Common Nettle)	F
<i>Veronica chamaedrys</i> (Germander Speedwell)	O
<i>Vicia sativa</i> (Common Vetch)	R

Table 13: Quadrats recorded in section of Gorse Hill Lane LWS on 7<sup>th</sup> June 2024

Species	Q1	Q2	Q3	Q4	Q5	Q6
<i>Anisantha sterilis</i> (Barren Brome)	A	R	R			R
<i>Anthriscus sylvestris</i> (Cow Parsley)		R	R			
<i>Arctium minus</i> (Lesser Burdock)	R					
<i>Arrhenatherum elatius</i> (False Oat-grass)		R	R			R
<i>Ballota nigra</i> (Black Horehound)			O			
<b><i>Brachypodium pinnatum</i> s.l. (Tor-grass)</b>	R		A	A	R	
<i>Bromus hordeaceus</i> (Soft-brome)						F
<i>Chaerophyllum temulum</i> (Rough Chervil)	R			R	R	
<i>Dactylis glomerata</i> (Cock's-foot)			R		O	O
<b><i>Festuca ovina</i> (Sheep's-fescue)</b>				R		
<i>Festuca rubra</i> (Red Fescue)	O			F		O
<i>Fraxinus excelsior</i> (Ash) (seedling)	R					
<i>Galium aparine</i> (Cleavers)	F		R	R		R
<i>Geranium pusillum</i> (Small-flowered Crane's-bill)						R
<i>Geum urbanum</i> (Wood Avens)		O				
<i>Glechoma hederacea</i> (Ground-ivy)		O	R			
<i>Hedera helix</i> (Ivy)				R		
<i>Heracleum sphondylium</i> (Hogweed)					R	R
<i>Lamium album</i> (White Dead-nettle)		R				
<i>Ligustrum vulgare</i> (Wild Privet) (seedling)				O		
<i>Lolium perenne</i> (Perennial Rye-grass)					R	O
<i>Phleum pratense</i> (Timothy)				R	O	O
<i>Plantago lanceolata</i> (Ribwort Plantain)					F	
<i>Poa annua</i> (Annual Meadow-grass)				O	R	
<i>Poa trivialis</i> (Rough Meadow-grass)		R	A	R	F	F
<i>Potentilla reptans</i> (Creeping Cinquefoil)	R	F		O	O	F
<i>Ranunculus repens</i> (Creeping Buttercup)		F				
<i>Rubus fruticosus</i> agg. (Bramble)	A			R		
<i>Scorzoneroideis autumnalis</i> (Autumn Hawkbit)						R
<i>Silene latifolia</i> (White Campion)						R
<i>Trifolium pratense</i> (Red Clover)					A	
<i>Veronica chamaedrys</i> (Germander Speedwell)		A				

Species	Q1	Q2	Q3	Q4	Q5	Q6
<i>Vicia sativa</i> ssp. <i>segetalis</i> (Common Vetch)					R	
Sward height (cm)	55	20	55	40	20	35
Bare ground (%)	2	0	0	2	0	5
Grasses:forbs (%)	50:50	10:90	90:10	80:20	50:50	80:20



Table 14: Species recorded in section of Gorse Lane LWS on 7<sup>th</sup> June 2024

Species	Abundance
Trees, shrubs and woody climbers	
<i>Crataegus monogyna</i> (Hawthorn)	R
<i>Fagus sylvatica</i> (Beech)	F
<i>Fraxinus excelsior</i> (Ash)	R
<i>Hedera helix</i> (Ivy)	A
<i>Ligustrum vulgare</i> (Wild Privet)	R
<i>Prunus spinosa</i> (Blackthorn)	R
<i>Rosa arvensis</i> (Field-rose)	R
<i>Rosa canina</i> (Dog-rose)	R
<i>Rubus fruticosus</i> agg. (Bramble)	A
<i>Ulmus glabra</i> (Wych Elm)	R
Herbaceous species: grasses, sedges and rushes	
<i>Anisantha sterilis</i> (Barren Brome)	R
<i>Brachypodium sylvaticum</i> (False Brome)	O
<i>Dactylis glomerata</i> (Cock's-foot)	R
<i>Festuca rubra</i> (Red Fescue)	R
<i>Holcus lanatus</i> (Yorkshire-fog)	R
<i>Lolium perenne</i> (Perennial Rye-grass)	O
<i>Poa trivialis</i> (Rough Meadow-grass)	F
Herbaceous species: other	
<i>Aegopodium podagraria</i> (Ground-elder)	R
<i>Alliaria petiolata</i> (Garlic Mustard)	R
<i>Anthriscus sylvestris</i> (Cow Parsley)	O
<i>Arctium minus</i> (Lesser Burdock)	R
<i>Artemisia vulgaris</i> (Mugwort)	R
<i>Arum maculatum</i> (Lords-and-Ladies)	R
<i>Ballota nigra</i> (Black Horehound)	R
<i>Bryonia dioica</i> (White Bryony)	R
<i>Chaerophyllum temulum</i> (Rough Chervil)	O
<i>Cirsium vulgare</i> (Spear Thistle)	R
<i>Epilobium tetragonum</i> (Square-stalked Willowherb)	R
<i>Galium aparine</i> (Cleavers)	F
<i>Geranium robertianum</i> (Herb-Robert)	O
<i>Geum urbanum</i> (Wood Avens)	F
<i>Glechoma hederacea</i> (Ground-ivy)	F
<i>Heracleum sphondylium</i> (Hogweed)	F
<i>Hyacinthoides x massartiana</i> (Hybrid Bluebell)	R
<i>Jacobaea vulgaris</i> (Common Ragwort)	O
<i>Lamium album</i> (White Dead-nettle)	O
<i>Moehringia trinervia</i> (Three-nerved Sandwort)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	R

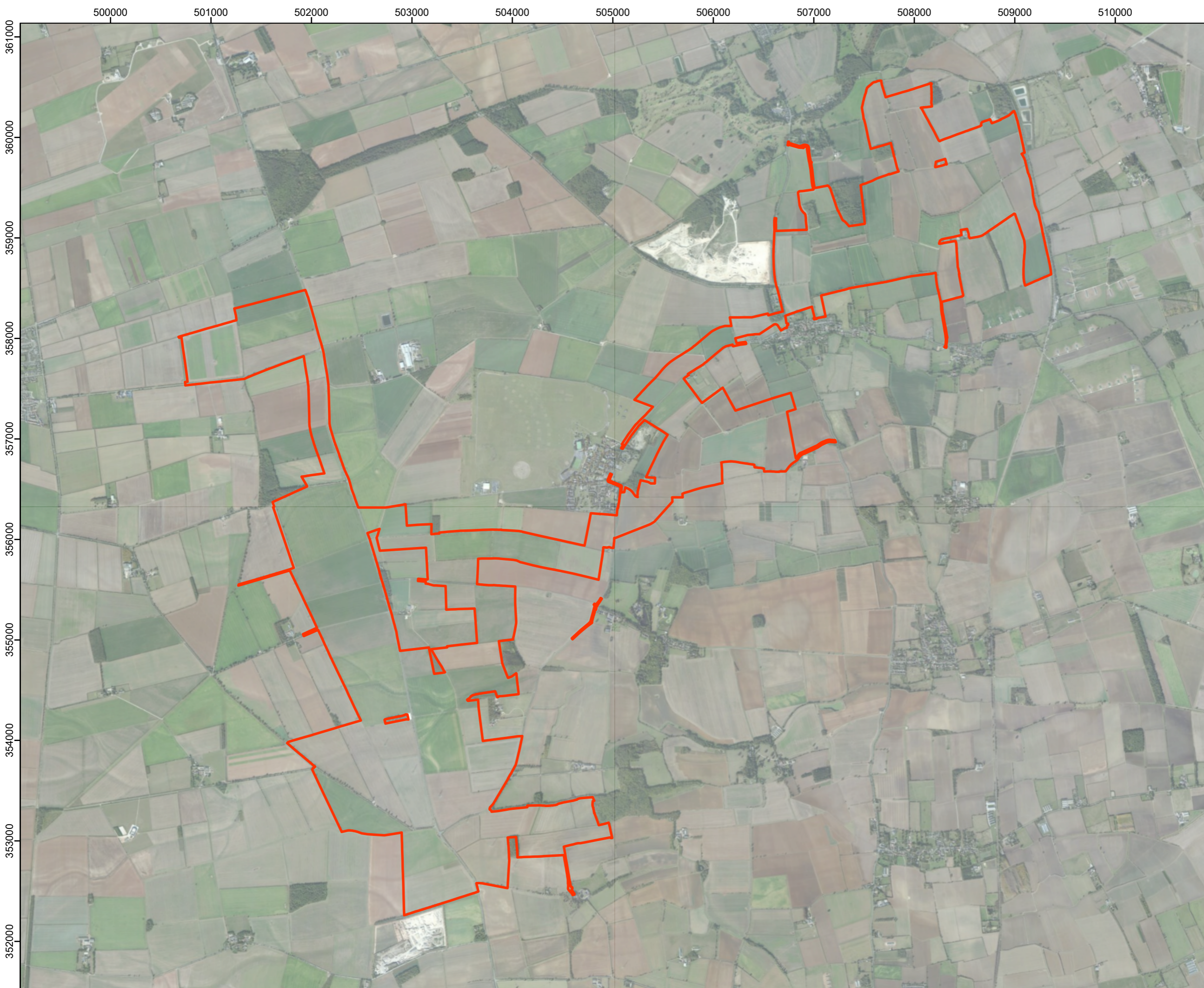
Species	Abundance
<i>Plantago major</i> (Greater Plantain)	R
<i>Potentilla reptans</i> (Creeping Cinquefoil)	R
<i>Prunella vulgaris</i> (Selfheal)	R
<i>Rumex obtusifolius</i> (Broad-leaved Dock)	R
<i>Rumex sanguineus</i> (Wood Dock)	F
<i>Sonchus asper</i> (Prickly Sow-thistle)	R
<i>Sonchus oleraceus</i> (Smooth Sow-thistle)	R
<i>Stachys sylvatica</i> (Hedge Woundwort)	R
<i>Taraxacum</i> sect. <i>Taraxacum</i> (Common Dandelion)	O
<i>Urtica dioica</i> (Common Nettle)	F
<i>Viola odorata</i> (Sweet Violet)	R
<i>Viola reichenbachiana</i> (Early Dog-violet)	R


Table 15: Quadratss recorded in section of Gorse Lane LWS on 7<sup>th</sup> June 2024

Species	Q7	Q8	Q9	Q10
<i>Alliaria petiolata</i> (Garlic Mustard)		R		
<i>Anisantha sterilis</i> (Barren Brome)			R	
<i>Arctium minus</i> (Lesser Burdock)			O	
<i>Arum maculatum</i> (Lords-and-Ladies)				R
<i>Brachypodium sylvaticum</i> (False Brome)	O			R
<i>Crataegus monogyna</i> (Hawthorn) (seedling)	R			
<i>Dactylis glomerata</i> (Cock's-foot)	R		A	
<i>Epilobium tetragonum</i> (Square-stalked Willowherb)			R	
<i>Fraxinus excelsior</i> (Ash) (seedling)	R			
<i>Galium aparine</i> (Cleavers)	R	O	R	F
<i>Geum urbanum</i> (Wood Avens)	O	R	R	F
<i>Glechoma hederacea</i> (Ground-ivy)				O
<i>Hedera helix</i> (Ivy)	A			A
<i>Ligustrum vulgare</i> (Wild Privet)	R			
<i>Moehringia trinervia</i> (Three-nerved Sandwort)			O	
<i>Poa trivialis</i> (Rough Meadow-grass)	R	R	F	R
<i>Rubus fruticosus</i> agg. (Bramble)	F	D		R
<i>Rumex sanguineus</i> (Wood Dock)		R	O	F
<i>Viola odorata</i> (Sweet Violet)	O			
<i>Viola reichenbachiana</i> (Early Dog-violet)	R			
Sward height (cm)	8	40	60	15
Bare ground (%)	20	30	15	20
Grasses:forbs (%)	10:90	19:1 (Rfru 80)	60:40	95:5

# Figure 1 - Site Location





LEGEND:  
 Order Limits



Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

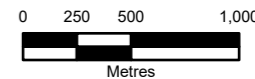
**Springwell Solar Farm**




DOCUMENT:  
 ENVIRONMENTAL STATEMENT  
 VOLUME 3, APPENDIX 7.9: LOCAL  
 WILDLIFE SITE VERGES SURVEY  
 REGULATION 5(2)(a)

TITLE:  
 FIGURE 1 SITE LOCATION

PINS REFERENCE NUMBER:  
 EN010149/APP/6.3



Scale: 1:35,000 @ A3



REV 01

# Figure 2 - Local Wildlife Sites

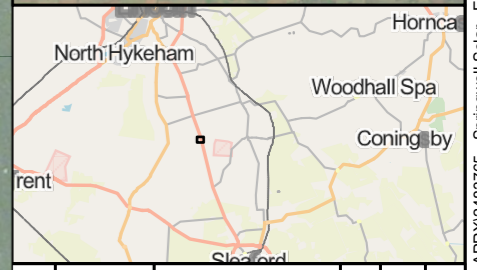
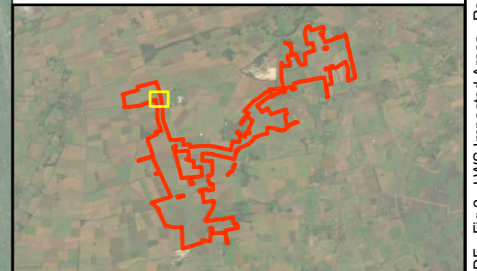


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**LEGEND:**

- Order Limits
- Indicative Boundary of Local Wildlife Site (LWS)
- Proposed Indicative Location for Vegetation Removal



01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF
Rev	Date	Description	Drn	Chk	App

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DOCUMENT:  
 ENVIRONMENTAL STATEMENT  
 VOLUME 3, APPENDIX 7.9: LOCAL  
 WILDLIFE SITE VERGES SURVEY  
 REGULATION 5(2)(a)

TITLE:  
 FIGURE 2 LOCAL WILDLIFE SITES, PAGE 1  
 OF 4

PINS REFERENCE NUMBER:  
 EN010149/APP/6.3

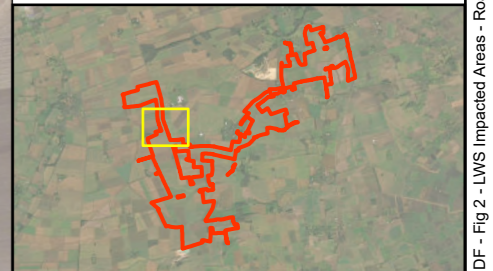
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REV 01



**LEGEND:**

- Order Limits
- Indicative Boundary of Local Wildlife Site (LWS)
- Proposed Indicative Location for Vegetation Removal



Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

**Springwell Solar Farm**

DOCUMENT:  
ENVIRONMENTAL STATEMENT  
VOLUME 3, APPENDIX 7.9: LOCAL  
WILDLIFE SITE VERGES SURVEY  
REGULATION 5(2)(a)

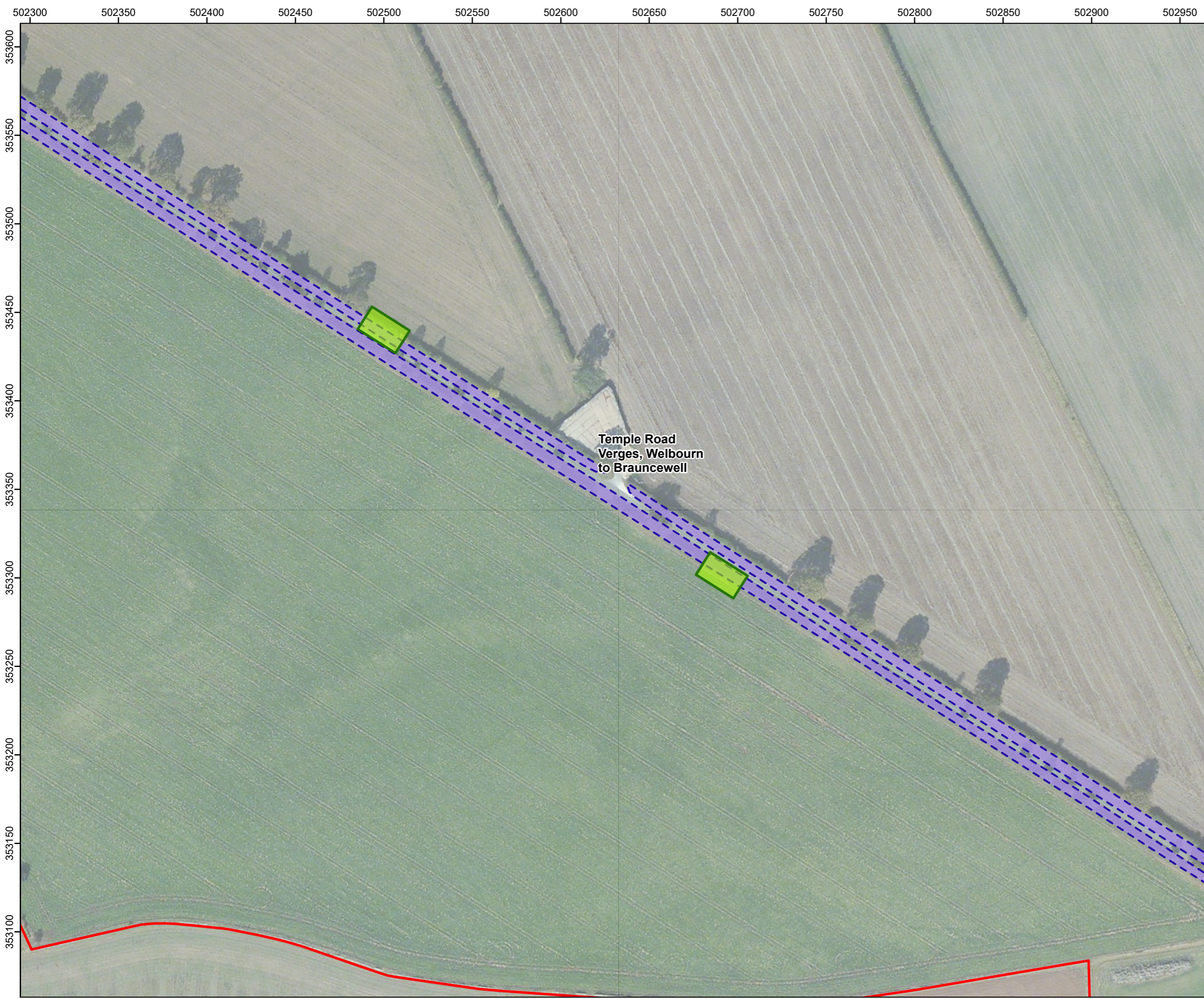
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OF 4

PINS REFERENCE NUMBER:  
EN010149/APP/6.3

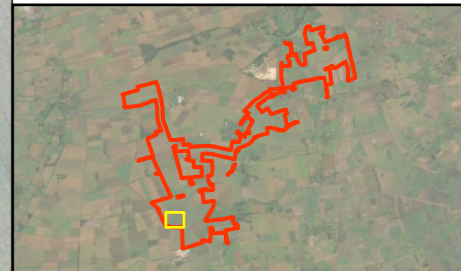
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REV 01





- LEGEND:**
- Order Limits
  - Indicative Boundary of Local Wildlife Site (LWS)
  - Proposed Indicative Location for Vegetation Removal



Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

**Springwell Solar Farm**

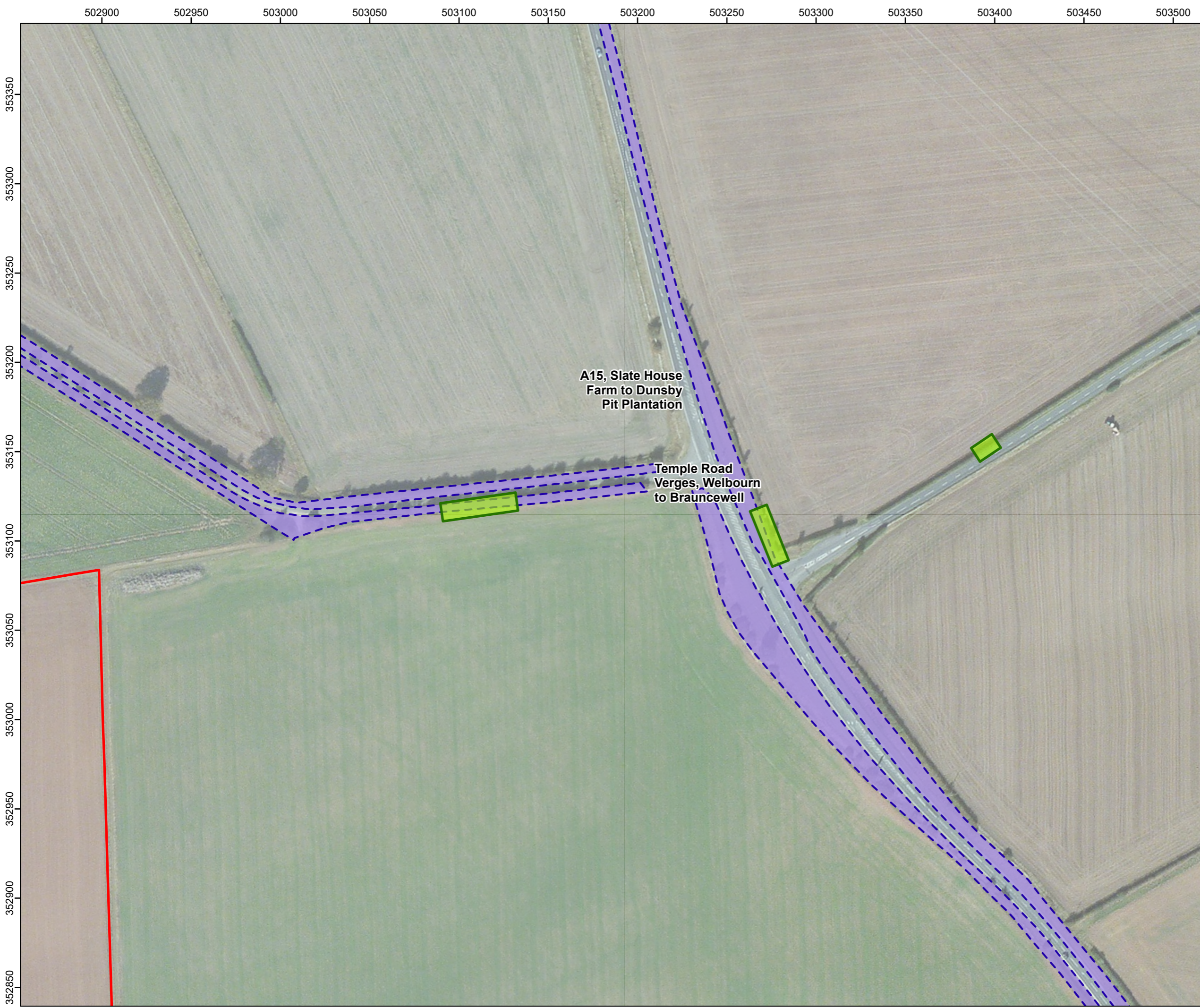
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 VOLUME 3, APPENDIX 7.9: LOCAL  
 WILDLIFE SITE VERGES SURVEY  
 REGULATION 5(2)(a)

**TITLE:**  
 FIGURE 2 LOCAL WILDLIFE SITES, PAGE 3  
 OF 4

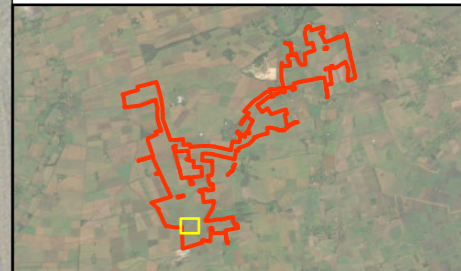
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REV 01



- LEGEND:**
- Order Limits
  - Indicative Boundary of Local Wildlife Site (LWS)
  - Proposed Indicative Location for Vegetation Removal



Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

**Springwell Solar Farm**

DOCUMENT:  
 ENVIRONMENTAL STATEMENT  
 VOLUME 3, APPENDIX 7.9: LOCAL  
 WILDLIFE SITE VERGES SURVEY  
 REGULATION 5(2)(a)

TITLE:  
 FIGURE 2 LOCAL WILDLIFE SITES, PAGE 4  
 OF 4

PINS REFERENCE NUMBER:  
 EN010149/APP/6.3

Scale: 1:2,000 @ A3

REV 01



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