



# SUNNICA ENERGY FARM

EN010106

Environmental Statement

Volume 6

6.2 Appendix 8K: Badger Survey Report

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and  
Procedure) Regulations 2009



Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

**Sunnica Energy Farm**

**Environmental Statement  
Appendix 8K: Badger Survey Report**

<b>Regulation Reference:</b>	Regulation 5(2)(a)
<b>Planning Inspectorate Scheme Reference</b>	EN010106
<b>Application Document Reference</b>	EN010106/APP/6.2
<b>Author</b>	Sunnica Energy Farm Project Team

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 00	18 November 2021	Application Version

## Executive summary

AECOM was instructed by Sunnica Limited to undertake a survey for Badger within the Scheme boundary (Order limits) of the Sunnica Energy Farm, to determine the presence or absence of Badger *Meles meles*.

Badgers and their setts are afforded protection under the Protection of Badgers Act (1992 and amendments).

To determine whether Badgers are present within the Order limits, Badger surveys were undertaken within the Order limits between 2019 and 2021.

These surveys identified the presence of Badger, including Badger setts, within the Order limits.

The survey information will be used to produce an appropriate and practical mitigation strategy for Badger (which is included as Annex B), where these are impacted upon by the Scheme.

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# 1 Introduction

1.1.1 In March 2019, AECOM (on behalf of Sunnica Limited), undertook a Preliminary Ecological Appraisal (PEA) (Ref 1) for the Sunnica Energy Farm (hereafter referred to as the Scheme). This PEA identified the need for follow-up surveys to determine the potential impacts of the proposed Sunnica Energy Farm on protected and notable species<sup>1</sup>, including Badger *Meles meles*. Therefore, AECOM was instructed by Sunnica Limited to undertake a survey for Badger within the Scheme boundary (Order limits) (see **Figure 1**), to determine the presence or absence of Badger.

1.1.2 Owing to the confidentiality surrounding reporting of locations of Badger, the survey results, evaluation, conclusions and mitigation strategy have been redacted from this report and are included as confidential annexes. These will be provided separately to key stakeholders.

## 1.2 The Scheme

1.2.1 Sunnica Energy Farm (the Scheme) is a new solar energy farm proposal that will deliver electricity to the national electricity transmission network. Sunnica Limited is proposing to install ground mounted solar photovoltaic (PV) panel arrays to generate electrical energy from the sun and combine these with a Battery Energy Storage System (BESS) which will connect to Burwell National Grid Substation in Cambridgeshire.

1.2.2 Electricity will be generated at Sunnica East Site A, near Isleham in Cambridgeshire; Sunnica East Site B, near Worlington and Freckenham in Suffolk; Sunnica West Site A near Chippenham and Kennett in Cambridgeshire; and Sunnica West Site B, near Snailwell in Cambridgeshire. All locations will comprise ground mounted solar PV panel arrays, supporting electrical infrastructure and, with the exception of Sunnica West Site B, a BESS.

1.2.3 Supporting electrical infrastructure will include on-site substations on Sunnica East Site A and Sunnica East Site B and Sunnica West Site A, and on-site cabling between the different electrical elements across the Scheme. The generating equipment of the Scheme will be fenced and protected via security measures such as Closed Circuit Television. Inside the fenced areas, in addition to the generating equipment will be, internal access tracks, and drainage. It is not proposed for any area to be continuously lit.

1.2.4 Visual, ecological and archaeological mitigation is proposed which includes proposed grassland planting and new woodland; retention of existing woodland, wetlands and other vegetation; provision of replacement habitat; and offsetting areas, where there will be no development. The BESSs will consist of a compound and battery array to allow for the importation, storage and exportation of energy to the National Grid. There will also be areas at Sunnica East Site A and Sunnica East Site B for office and storage facilities for use during the Scheme's operation.

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<sup>1</sup> A notable species is a species with a conservation designation, but no legal protection

- 1.2.5 The Scheme will be connected to a new substation extension at the existing Burwell National Grid Substation, using 132 kilovolt (kV) cables buried underground. The cables will run between Sunnica East Site A, Sunnica East Site B and Sunnica West Site A (Grid Connection Route A), and then from Sunnica West Site A to Sunnica West B and onwards to the Burwell National Grid Substation (Grid Connection Route B). The Burwell National Grid Substation Extension will convert the 132kV to 400kV. The 400kV cables will be buried and will connect the Scheme to the existing Burwell National Grid Substation to allow distribution to the national transmission network.
- 1.2.6 The Scheme will have two main access points, one north of Elms Road at Sunnica East Site B and one south of La Hogue Road at Sunnica West Site A. The main access route to Sunnica West Site A will be via the Chippenham junction of the A11, to the north of junction 38 of the A14. Sunnica East Site B will be accessed via the A11 and B1085. A number of secondary access points are proposed to access the individual land parcels through construction, operation, and decommissioning phases.
- 1.2.7 The Scheme is defined as a Nationally Significant Infrastructure Project (NSIP) and will require a Development Consent Order (DCO) from the Secretary of State for Business, Energy and Industrial Strategy (Secretary of State), due to its generating capacity exceeding 50 megawatts (MW).
- 1.2.8 The Scheme comprises the following key areas:
- a. Solar Farm Sites:
    - i. Sunnica East Site A;
    - ii. Sunnica East Site B;
    - iii. Sunnica West Site A; and
    - iv. Sunnica West Site B.
  - b. associated electrical infrastructure for connection to the national transmission system comprise:
    - i. Grid Connection Route A ('A1' - connecting the Sunnica East Site A with the Sunnica East Site B and then 'A2' connecting to the Sunnica West Site A);
    - ii. Grid Connection Route B ('B1' - connecting the Sunnica West Site A and Sunnica West Site B and 'B2' connecting to the Burwell National Grid Substation); and
    - iii. Burwell National Grid Substation Extension.
- 1.2.9 **Figure 1** shows the locations of these key areas.

### 1.3 Site description

- 1.3.1 A summary description of the habitats within the Scheme boundary (made up of the four Sites (see section 1.2.8)) is provided below and a more detailed description of the habitats is provided in the PEA report (Ref 1). The extent of the Scheme is shown in **Figure 1**.

## **Sunnica East Site**

- 1.3.2 Sunnica East is split into two sub-sites, one to the north of Freckenham (referred to as Sunnica East Site A) and the other to the south of Worlington (referred to as Sunnica East Site B). These two sites are approximately 1km apart and are separated by agricultural fields. The Sunnica East Site A encompasses an area of approximately 224ha and includes land within the county of Suffolk and Cambridgeshire. Sunnica East Site B lies within Suffolk and encompasses an area of approximately 319ha (**Figure 1**).
- 1.3.3 The landscape features within the Sunnica East Site A and Sunnica East Site B consist of arable agricultural fields interspersed with individual trees, hedgerows, linear tree belts, small woodland blocks, farm access tracks and local roads.
- 1.3.4 The landscape features immediately surrounding the Sunnica East Site A and Sunnica East Site B comprise small rural villages, including Worlington to the north, Barton Mills to the north-east, Red Lodge and Freckenham to the south and Isleham to the west. Industrial land uses adjoin the A11 to the south of the Sunnica East Site with an industrial installation of a 7.5MW solar farm situated adjacent to the south-eastern extent of the Sunnica East Site and an anaerobic digestion (AD) plant located to the south of the Sunnica East Site.

## **Sunnica West Site**

- 1.3.5 The Sunnica West Site is located within the East Cambridgeshire District Council administrative area, approximately 3km north east of Newmarket and 6.5km east of Burwell.
- 1.3.6 Sunnica West is split into two sub-sites, one to the south-east (referred to as Sunnica West Site A) and the other to the north-west of Snailwell (referred to as Sunnica West Site B). These two sites are approximately 1km apart, separated by agricultural fields and Chippenham Road. The Sunnica West Site A encompasses an area of approximately 373ha and includes land to the east and west of the A11, consisting of agricultural fields bounded by trees, managed hedgerows, linear tree shelter belts, small woodland and copses and farm access tracks. Sunnica West Site B encompasses an area of approximately 66ha and comprise of agricultural fields, grassland, small woodland and copses, farm access tracks and irrigation ditches fed by the River Snail which runs along the western and northern boundaries of the Site (**Figure 1**).
- 1.3.7 The surrounding landscape comprises regularly shaped arable fields interspersed with managed hedgerows, tall shelter belts of trees and in the Chippenham Hall area, a parkland landscape with mature individual trees. Much of the area is also characterised by grazed paddocks, horse gallops and exercise tracks.

## **Cable route corridors**

- 1.3.8 The Scheme will connect to the existing Burwell National Grid Substation via a cable route corridor. The cable route corridors under consideration are Grid Connection Route A, which connects the Sunnica East Site A with the Sunnica East Site B and then runs between the Sunnica West Site A and the Sunnica East Site

B; and Grid Connection Route B, between the Sunnica West Site A and Sunnica West Site B and the Burwell National Grid Substation Extension.

#### *Grid Connection Route A*

- 1.3.9 Grid Connection Route A connects the Sunnica East Site A with Sunnica East Site B and crosses two minor roads and arable farmland (**Figure 1**).
- 1.3.10 Heading south from the Sunnica East Site B, the cable route corridor for Grid Connection Route A crosses the River Kennett, pastoral farmland, the Chippenham footpath 49/7 (a Public Right of Way (PRoW)) and B1085 (**Figure 1**).

#### *Grid Connection Route B*

- 1.3.11 Heading east from the Burwell National Grid Substation, the cable route corridor for Grid Connection Route B crosses agricultural fields and a number of roads including the B1102 and A142. Grid Connection Route B also crosses a number of watercourses, including the Burwell Lode, New River, and the River Snail, as well as a number of drainage ditches associated with Burwell Fen, Little Fen, the Broads, and agricultural drains (**Figure 1**).
- 1.3.12 The cable route corridor for Grid Connection Route B crosses a PRoW (footpath 92/19) before crossing the railway line and the A142 Newmarket / Fordham Road. The Route then runs alongside Snailwell Road and across the River Snail into Sunnica West Site B.

### **Burwell National Grid Substation Extension**

- 1.3.13 The habitat within the Burwell National Grid Substation Extension (surrounding the existing substation) (**Figure 1**) comprises small grassland fields to the east of the existing substation (bordered by hedgerows and mature trees) and arable land to the south and west of the existing substation.

## **1.4 Scope of the Report**

- 1.4.1 The objective of the Badger survey, reported in this document is to determine the presence or absence of Badger within the Order limits and, if present, any mitigation that may be required.
- 1.4.2 This report includes the following information:
- a. relevant legislation and policy;
  - b. methodologies for desk and field-based assessments undertaken between 2018 and 2021;
  - c. limitations to the surveys undertaken and any assumptions made as a result of incomplete data;
  - d. survey results (Annex 8A);
  - e. evaluation and potential impacts (Annex 8A); and
  - f. conclusions (Annex 8A) and mitigation (Annex 8B).



1.4.3 This report is a technical appendix to accompany the Environmental Statement (ES) for the DCO application.

## 2 Legislative and Policy Framework

### 2.1 Relevant legislative context

2.1.1 Badgers and their setts<sup>2</sup>, are protected under various legislation, drawn together under the Protection of Badgers Act 1992 (Ref 2), which protects Badgers from deliberate harm and injury. Restrictions under this Act, which apply to development, make it an offence to:

- a. wilfully kill, injure, possess or cruelly ill-treat a Badger, or attempt to do so;
- b. interfere with a sett by damaging or destroying it;
- c. obstruct access to, or an entrance of, a sett; and
- d. disturb a Badger when it is occupying a sett.

2.1.2 This legislation prevents development on a site occupied by Badgers without any mitigation being agreed and undertaken prior to development commencing. If potential impacts are perceived on Badger setts, such as disturbance or loss, then a licence to close a sett would be required from Natural England. It would also be necessary to undertake appropriate mitigation that comprises construction of artificial sett(s).

2.1.3 The Protection of Badgers Act, 1992, was introduced to combat the cruel ill-treatment and persecution to which Badgers are sometimes subjected. This report identifies the location of a number of Badger setts and therefore to safeguard these animals, the report should be treated as confidential and not released into the public domain.

### 2.2 National and local planning policy

2.2.1 National and local planning policy relevant to nature conservation is provided in detail in the PEA report for the Scheme (Ref 1), which is also included as Appendix 8B of the ES.

### 2.3 Local biodiversity action plan

2.3.1 Badger is not listed as a Priority Species on the Cambridgeshire and Peterborough Biodiversity Action Plan (Ref 3) or the Suffolk Biodiversity Action Plan (Ref 4).

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<sup>2</sup> A Badger sett is a Badgers homestead, which is a network of underground tunnels and chambers

## 3 Methods

### 3.1 Desk study

- 3.1.1 A desk study was undertaken in December 2018 through the Cambridgeshire & Peterborough Environmental Records Centre (CPERC) and the Suffolk Biodiversity Information Service (SBIS), to obtain to obtain records of Badger within the preceding ten years and within a 2km radius of the Order limits.
- 3.1.2 Only records up to ten years old from the request date were considered within the assessment, as any records older than ten years are unlikely to be still representative of Badger presence in the local area.

### 3.2 Field survey

#### Survey area

- 3.2.1 The area surveyed for Badgers (the survey area) included all habitat within the Order limits (see **Figure 1**).
- 3.2.2 Where access allowed, the survey area was extended to 50m beyond the Order limits. Any Badger setts that were found during the course of other ecological surveys, outside of this survey area, were also recorded.
- 3.2.3 Modifications to the Order limits through the survey period resulted in minor modifications to the survey area used and therefore surveys for Badger were updated to reflect the extent of the Scheme. The surveys covered the Order limits and provide a robust baseline of Badger activity within the Site

#### Badger activity

- 3.2.4 The survey was based on standard survey methodology for surveying Badger, as described in the Mammal Society publication: Surveying Badgers (Ref 5); in Surveying for Badgers: Good Practice Guidelines, Version 1 (Ref 6) and in the National Badger Survey methodology (Ref 7).
- 3.2.5 A walkover survey was carried out on 2 February, 25 April, 26 April and 17 December 2019 to look for evidence of Badger activity within the Order land.
- 3.2.6 Surveys of the Burwell National Grid Substation Extension were undertaken in July 2020. Furthermore, any evidence of Badger activity that was noted whilst undertaking other Ecology surveys of the survey area throughout 2020 was also recorded.
- 3.2.7 To reflect changes to the Order limits, surveys for Badger activity were undertaken across the entire Order limits (where access allowed) in December 2020 and January 2021, to search for new signs of Badger activity and to check on the activity of any setts found in 2019. All survey information was used to assess the current and potential future usage of the survey area and surrounding habitat by Badger
- 3.2.8 The survey area was searched for all signs of Badger activity within the Order limits including:

- a. setts;
- b. pathways in vegetation;
- c. footprints;
- d. hairs;
- e. latrines / dung pits; and
- f. snuffle holes / signs of foraging activity.

3.2.9 Any holes considered to be a Badger sett were categorised using sett classification criteria (Ref 7) and identified setts were classified using the following criteria:

- a. **Main sett:** These are large setts with a number of active holes and conspicuous spoil heaps around the sett. There will be well used paths to and from sett entrances and they are usually in continuous use. A main sett is most likely to be where cubs are born and there is only one main sett per Badger clan.
- b. **Annexe sett:** These setts are often close to main setts and are linked to main setts through well-worn paths in vegetation. There are usually several entrance holes to an annexe sett, but these may not be in use all the time.
- c. **Subsidiary sett:** These are smaller setts and usually comprise three to five entrance holes, often >50 metres from a main sett, with usually no connectivity to other setts.
- d. **Outlier sett:** There are usually one to three holes in an outlier sett, with small spoil heaps outside the hole. They are often used sporadically and have no connectivity with other setts. When not in use by Badger, they may be taken over by other ground-dwelling mammals.

3.2.10 Once a sett was identified, entrance holes were classified further as being one of the following:

- a. **Well-used:** The entrance hole is clear of debris and vegetation and is in regular use. It may not have been recently excavated.
- b. **Partially used:** A hole not in regular use, with minimal clearance when in use. Debris, including leaves and moss may be present in the entrance hole.
- c. **Disused:** Holes have obviously not been in use and are partially or completely blocked. They cannot be used without considerable clearance. Where a hole has not been used in some time, the hole may be just visible as a depression in the ground and former spoil heap.

3.2.11 Additionally, a subjective assessment of the habitat quality within the survey area was used to determine 'foraging potential' for Badgers. This assessment was based on the number of available food sources and included:

- a. **'Good' foraging potential:** where habitat was considered to provide Badgers with a variety of foraging opportunity throughout the year;
- b. **'Moderate' foraging potential:** where foraging opportunities are seasonal and limited; and
- c. **'Poor' foraging potential:** areas with no food value for Badger.

### **3.3 Assumptions and limitations**

#### **Desk study**

- 3.3.1 The aim of a desk study was to help characterise the baseline context of the Scheme and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for Badger does not necessarily mean that Badger does not occur in the study area. Likewise, the presence of records for Badger does not automatically mean that these still occurred within the area of interest or were relevant in the context of the Scheme.

#### **Field survey**

- 3.3.2 Sufficient information has been gathered during the assessment to provide a representative evaluation of the population of Badger present within the Order limits.

## 4 References

- Ref 1. AECOM, 2020. Sunnica Energy Farm Preliminary Ecological Appraisal.
- Ref 2. Anon, 1992. Protection of Badgers Act 1992. HMSO.
- Ref 3. Cambridgeshire and Peterborough Biodiversity Group, 2015. Cambridgeshire\_Peterborough\_Priority Species.
- Ref 4. Suffolk Biodiversity Information Service, 2018. Priority Species List.
- Ref 5. Harris S, Cresswell P, and Jefferies D (1989) Surveying Badgers, Mammal Society.
- Ref 6. Scottish Badgers (2018). Surveying for Badgers: Good Practice Guidelines. Version 1
- Ref 7. Cresswell, P., Harris, S. and Jefferies, D.J., 1990. The history, distribution, status and habitat requirements of the badger in Britain. Nature Conservancy Council, Peterborough.
- Ref 8. Badgerland Website  
[REDACTED]
- Ref 9. Wildlife online – European Badger Territoriality and Home Range

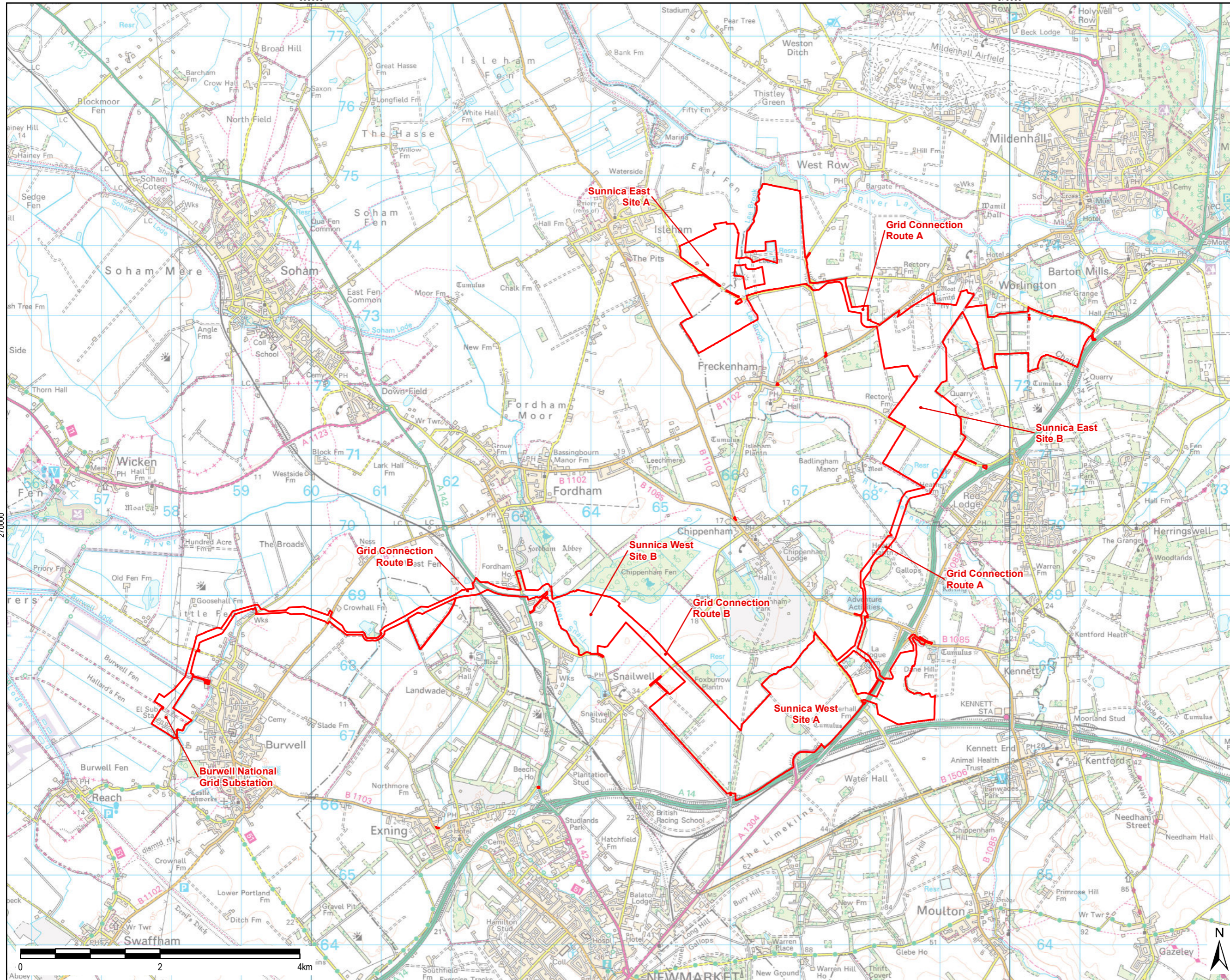
# Figures

## Figure 1 Order limits boundary

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LEGEND

The Order Limits



Document Reference: EN010106/APP/6.3  
APFP Regulation: 5(2)(a)

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Purpose of Issue  
FOR DCO SUBMISSION

Client  
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Drawing Title  
FIGURE 1:  
SITE LOCATION

Drawn BF	Checked AB	Approved NC	Date 21/10/2021
AECOM Internal Project No. 60589004		Scale @ A3 1:50,000	

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Drawing Number 60589004_ES_ECO_003	Rev 0
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## **Annex 8A Badger survey results, evaluation and conclusions (CONFIDENTIAL)**

Owing to the confidentiality surrounding reporting of locations of Badger, the survey results, evaluation, conclusions and mitigation strategy have been redacted from this report and are included as confidential annexes. These will be provided separately to key stakeholders.

## **Annex 8B            Badger Mitigation Strategy (CONFIDENTIAL)**

Owing to the confidentiality surrounding reporting of locations of Badger, the survey results, evaluation, conclusions and mitigation strategy have been redacted from this report and are included as confidential annexes. These will be provided separately to key stakeholders.